

Field Book

of

W. L. Jepson

University of California
Berkeley

This book is valuable but is
valuable only to the owner.

If lost finder please return to
W. L. Jepson, 2712 Bonaventura Ave.,
Berkeley, California, and
receive reward.

Berkeley to Pasadena. 1
March 28, 1924.

- Left San Francisco on the Day-light Limited to Los Angeles. This train carries only day coaches but it makes no stops, not even at San Jose or Santa Barbara. The only stops were for train operation, such as change of engines, or to take siding.

Once more I was impressed by the great break-down of the Coast Ranges back of Santa Maria and Surf. The country is low-rolling or flatish plain. First one sees in the remote eastern distance behind the furthestest range two great mountains rise, not peaks but mountains. As one runs south to Surf one cannot be many feet above sea-level but one can see over a nearly level plain

2 Berkeley to Pasadena, Mar. 28, '24.

in the far eastern distance a somewhat Diablo-looking mountain of one peak. It is somewhat solitary but seems massive. It is possible that in the run of the train one's directions are slightly lost, and that it may be one of the mountains noted on the previous page but seen from a different point of view and thus presenting a different contour and setting.

About six miles south of Surf, that is a rough guess, the railroad right of way carries fine plants of *Leptosyne gigantea*. I saw one which must have been 6 ft. high, with its candelabra like arms. The plants were in excellent flower.

Pasadena, March 29, 1924.

- The mesa of Pasadena carried originally a fine grove of *Quercus engelmannii*. Many of the trees have been preserved in the residence sections of the city, while just to the east there are still primitive groves, as on the Santa Anita Ranch.

With F. W. Peckham I drove to Pomona College. Dr. Campbell of Stanford, a member of our party at the Hotel Huntington, having nothing to do, came along. We found Dr. Mung temporarily housed in the Zoology building. We took a look at the Jones Herbarium which led to talk about Jones. It seems that Mung has made up his mind "to get along" with Jones and has the capacity to do it. He thinks Jones' disposition is due to living so long amongst the Mormons; no one was ever nice to him;

Pasadena

that he, Murray, has been nice to him and found him responsive. I replied that he, Jones, thought everybody a Mormon and attacked persons that did not know him (Jones) at all. There is no question that Murray is an able and most likeable chap, but it savors a little of the sub-sister stuff to tell us Jones is "a good old fellow"; that he was as he was, because no one was good to him. I do not object to his petting Jones to get along with him, for there is a big end to be attained, but don't try to put the same thing over the rest of us.

The Jones Herbarium is a considerable affair. It looks as if it had been dug out of a garbage pile; but inside, the bundles appear to be all right. Their

March 29, 1924.

external appearance is due to this fact: the house next to Jones burned down, and to preserve his collection from a like fate he stored it in the attic of a University of Utah building. The windows were out, and while no rain blew in, the coal smoke blew in and discolored the bundles externally so that they look like the "old scratch."

On the way to the Doheny palm house Hall told of Mrs. Brandegee collecting scraps of types. These scraps she did not label up; she was always going to - tomorrow. Tomorrow never came."

- Mr. H. L. Mason says: There are considerable numbers of scraps of types and specimens of types ^{on hand at herbarium} collected by Mrs. K. Brandegee. Dr. Hall has not yet gone over them or arranged them. He says he is almost afraid to look at them, because he expects to find many things which Mrs. Brandegee "borrowed" and should be returned to owners. 24

Berkeley to Angels Camp.

May 22, '24

- Left Berkeley at 5⁰⁰ am. My artist Miss Saunders and my laboratory assistant, Miss A.B. Carlson, come along. We drive via Antioch and Middle River to Stockton.

At Stockton we buy a few more provisions and go on via Linden, Jenny Lind, Milton and Elkhorn sta. to Angels Camp, taking an overnight camp-site about 1/2 mile above the town on the road to Vallejo. I secured a permit from Dr. Pasch, the local quarantine officer, to get across the Stanislaus River into Tuolumne Co.; all this on account of hoof-and-mouth disease.

- *Marrubium vulgare* L. Very abundant at Bellota, miles of it on the banks of the levee which guards the Calaveras River. See p. 7. (Bellota = San Joaquin Co.)

- *Medicago sativa* L. Appears to be spontaneous all through the Antioch and Brentwood sections, scattered

Angels Camp, May 23, '24.

Calaveras Co., 1400 ft.

plants along roadsides. Much more abundant in the lowland country between Old River bridge and Stockton.

- *Nerium oleander*. Does well about Linden, where the white-flowered form is favored in cultivation.

No. 10, 420. *Marrubium vulgare* L. See p. 6.

- *Trogopteris*. See p. 49.

No. 10, 421. *Rhamnus californica* Ech.
var. *tomentella* B.S.P.
This shrub is browsed somewhat.

Angels Camp.

No. 10, 422. *Aster Erigeron foliosus* Nutt.

Rocky hillslopes. Angels Camp.

No. 10, 423. *Trifolium ciliolatum* Bth.
Under oaks. Angels Camp. (*T. ciliatum* Nutt.)

No. 10, 424. *Trifolium obtusiflorum* Hook.
Herbage a little "dewy". Moist spot by irrigation ditch. Angels Camp.

No. 10, 425. *Trifolium microcephalum* Bth.
Angels Camp.

No. 10, 426. *Trifolium pratense* L.

No. 10, 427. *T. repens* L. Both at Angels.

8 Angels Camp to Crane Flat

1400 ft.

No. 10,428. *Trifolium variegatum*
Nutt. Stream-bank, Angels.

No. 10,429. *Briza minor* L.

Angels.

Gulseratus Greene not

No. 10,430. *Convolvulus luteolus*
Gray. Angels Camp, dry hillslope.

No. 10,431. *Pentstemon breviflorus* Lindl.

Priest Hill, Tuolumne River.

Lower petals curled-recurved. Upper lip erect or
somewhat incurved, distinctly arched-hood-
ed, hairy on back. Anthers glabrous, dehisc-
cent. Base of all stamens with a explanate-
dilated base which is well-defined from
the filament proper and ciliate-margined.

No. 10,432. *Eriodictyon glutinosum*
Bth. See p. 22. Graveland, Tuolumne Co.

No. 10,433. *Arctostaphylos mexicana*

Ruell. in Eastw. On a "burn". With 10,432

Seedlings!!

- *Rubus laciniatus* Willd.

the common blackberry may have been
a bit spontaneous at Angels
Camp, 1/2 mile above the town,
on Angels Creek; it is along irrigation^v ditch.

May 23, 1924. 6300 ft.

Crane Flat. Yosemite

No. 10,434. *Ribes roezlii* Regel.

Petals when recurved deep purple,

only the tips greenish or reddish.

Anthers deep purple, with the very
upper part of the filaments exceeding
the petals which are erosulate at
apex; anthers distinctly mucronate;
styles greenish! Petals a little pink-
flushed below. Pedicels with 1 dis-
tinct bract at the middle -
the peduncle rarely 2-flowered.

Shrubs 14 to 20 in. high. Open
forest ridges. Bees working on fls. at 4:45^{p.m.}

No. 10,435. *Prunus emarginata* (Hook.)

Walp.

malacostachya Lloyd

Crane Flat.

No. 10,436. *Viola blanda* Willd.

Petals white, the lower a little cupped,
i.e. shallowly saucer-shaped, deep-
purple-veined, spreading. Upper petals
reflexed; lateral petals erect!! Most
swales! Terminal crests of anthers
brown; anthers whitish. See p. 10.

No. 10,437. *Barbarea vulgaris* A. Br.

Crane Flat. Moist spots in forest.
~~*B. orthoceras* Ledeb. var. *dolichocarpa* Kar.~~

No. 10,438. *Viola glabella* Nutt.

See p. 11. Rootstock very thick, especially for the size of the plant, fleshy-scaly. Corolla yellow, very small.

Moist swales. Lateral petals as well as lower deep purple-veined; lateral petals with a marked patch of short glandular hairs on upper side just above base, or rather about midway.

- Cont. 10,436. *Viola*

Lateral petals with a minute tuft of bristles opposite the auricle. Crane Flat.

No. 10,439. *Nemophila spatulata* Cov.

Low, short-stemmed; essentially prostrate or at least decumbent.

stamen

scale



Filaments not covered at base by scales. The scales consist simply of a diverging pair of narrow

scales furnished with spreading soft-hairy bristles. Crane Flat, open granite sand meadow.

- Cont. from p. 10, no. 10,438. The lateral petals have no proper auricle, but the area of glandular hairs is dense and well-defined.

Fraseria speciosa Dougl.

No. 10,440. *Fraseria radiata* (Nutt.)

The new growth from the winter bud on the root-crown resembles at this stage a sort of gigantic artichoke head, which is quite dense in the center. Granite-sand flat, in open Crane Flat. 8 in. high. Embryonic fl. buds in upper axils.

No. 10,441. *Viola adunca* Sm.

Corolla blue-purple; lateral petals with a hairy patch on upper side about midway. Lower petal the broadest, emarginate at the truncatish apex. Upper petals reflexed, 5 mm very broad and long, about as nearly as

Brane Flat, Yosemite
mariposa Co.

long as the petals. Lower petal purple
veined at base on a whitish ground.

No. 10,442. *Calochortus minimus* Ownbey

Gland consisting of a single
curved scale (convex side up) with
slightly fimbriated edges, extending
3/4 way across lower portion of petal.

Petals pure white, quite glabrous.

Flowers appearing at the ground,
or so near it that they appear to
rest on the ground! A single leaf
standing up above the flower and
as it were subtending it at base.

No. 10,443. *Veronica serpyllifolia*
L. Lower petal very small, upper
petal largest; corolla white, some-
times bluish. Filaments thickened
upward, so as to be slenderly club-
shaped.

May 24, 1924. 6300 ft.

- *Quercus Kelloggii* Newb. Just now
coming into leaf at upper end of
the meadow at Brane Flat, presenting a
beautiful appearance as the indicator
of early spring at this altitude.

No. 10,444. ~~*Cyperus*~~ ^{*Scirpus*} *congdonii* Britton.

Wet meadow; not rare.

No. 10,445. *Viola purpurea* Kell.

Flowers yellow. Granite sand flat
in open. Common.

No. 10,446. *Peltiphyllum peltatum* Engelm.
Lily Creek, above Yosemite Valley, on
road to Brane Flat. See p. 16.

No. 10,447. *Viola lobata* Bth.

Open pine woods, Gentry sta., Yo-
semite.

No. 10,448. *Silene lemmonii* Wats.

Yosemite, rocky walls. See 10,451

No. 10,449. *Arabis repanda* Wats.

Rocky walls, Yosemite.

No. 10,450. *Arabis Fendleri* Wats. See p. 17.

Yosemite Valley, c. 5000 ft.
mariposa Co.

No. 10,451. *Thysanocarpus curripes* Hook.
 Rocky walls, Yosemite; in soil

between the boulders. Nos. 10,448-

10,450 in soil similarly

No. 10,452. *Draperia systyla* Torr.

Rocky walls, Yosemite; in good soil
 between the boulders. Stamens unequal,
 slightly over half as long as tube in

their insertion; filaments ^{on lower half} slightly hairy. Cont. p. 17.

No. 10,453. *Beaumontia integririma*

H. & A. var. *californicus* (Nell.) Benson
 Rocky walls, Yosemite.

No. 10,454. *Potentilla glandulosa*

Link. var. *reflexa* Jepson

No. 10,455. *Cerastium arvense* L.

Granite sand, Yosemite talus slope.

Stamens 10. Pts. white, cuneate-obovate, cleft
 $\frac{1}{3}$ way down. Cont. p. 17.

No. 10,456. *Montia Claytonia perfoliata* s.l.

Donn. ex Willd.

Granite sand, Yosemite talus slope.

No. 10,457. *Lithothragma affinis* Gray

Moist slope, Vernal Fall.

Petals deeply 3-cleft.

May 25, 1924

No. 10,458. *Athyrium pusillum* Greene.
 Vernal Fall.

No. 10,459. *Carex*

Nevada Fall.

No. 10,460. *Bolandra californica* Gray.

This is the remarkable and interesting
 Sax-frag named for Henry N. Bolander.

It is, within my experience, quite rare
 and confined to this central Sierran re-
 gion. Only 3 plants were found on the
 granite slope just a few yards above
 the Silver Sporn, below the Nevada
 Fall. It grows, like a fern, under
 the edges of boulders, and may well
 be a glacial relic.

No. 10,461. *Galium*

Silver Sporn, below Nevada Fall.

No. 10,462. *Sedum spathulifolium*
 Hook. Rocky slope, Silver Sporn. See
 p. 17.

No. 10,463. *Henizyonella*

Cont. p. 18. Granite sand, Silver Sporn.

No. 10,464. *Pentstemon newberryi* Gray.
Corolla bright crimson. The plants form colonies in cracks of the granite ledges above Vernal Fall. The clusters of flowers are large and the colonies thus make a fine show against the gray granite. Cont. p. 18.

No. 10,465. *Bastillea breweri* Pres.
Calyx cleft equally before and behind, the lobes deeply 2-cleft, the crimson color extending down as far as cleft. Calyx ^{or much} shorter slightly exceeding lower lip. Bracts 3-cleft deeply, crimson on upper $\frac{2}{5}$.

See p. 31.

- *Sarcodes sanguinea* Torr. In a *Pinus murrayana* wood between Lily Creek and Genting ^{stg.} I counted about 32 plants. Only a few were in flower, most just pushing up. The symmetry of the scales formed a cone-like head.

Cont. no. 10,455. Styles apparently 6, really 3 (in sets of 2), each style cleft all the way to the base. Sepals somewhat scarious-margined. The plants grow in horizontal crevices in the granite on the sharply sloping walls of the cañon just below the Vernal Fall. The plants are chiefly and flowering profusely - making a fine show.

- Cont. no. 10,462. Petals joined a little at base, very distinctly to be sure, but still a slight union (say $\frac{1}{2}$ mm.). Opposite and at very base of carpels is a small quadratish or 4-sided scale; 4-sided in the sense of squarish. Cor. bright yellow.

- Cont. 10,452. Corolla lavender, pubescent outside. Style 2-cleft shortly, very shortly, as long as calyx.

- Cont. no. 10,450. = *A. rectissima* Greene. See p. 13.

Yosemite Valley, 4000 ft.

- Cont. no. 10,463. Ray fls. 4, leaving a gap in the circle on one side. Disk fls. 1 or 2.

- Cont. no. 10,464. Corolla lower lip with 2 broad wooly bands on palate, somewhat clavate in outline. Sterile fil. hairy on upper side. Anthers very wooly. Fertile fls. and style glabrous.

No. 10,466. *Mentzelia dispersa* Wats.
Sandy granite flat, Black Oak patch, Royal Arches. [The cor. in the dried spec. is golden.]

No. 10,467. *Cryptantha simulans* Greene.
Slender, lank, openly branched.
Granite sand slope, Royal Arches.

No. 10,468. *Cryptantha flaccida* Greene. with 10,467.

May 26, 1924

No. 10,469. *Collinsia tinctoria* Hartw.
with 10,467.

No. 10,470. *Lupinus grayi* Wats.
Essentially pedunculate from the ground, the leaves chiefly basal. Granite sand slope, with 10,467. Very handsome. Cor. blue. Banner with a central blotch of yellow slightly bordered by white. Upper half keel ciliate.

No. 10,471. *Plagiobothrys torreyi* Gray.
Many stems from the base and so, rather densely tufted. with 10,467.

No. 10,472. *Hemizonella*
Disk-fls. 1 or 2. Ray-fls. mostly 5, sometimes 4 or 3. Royal Arches.

No. 10,473. *Asarum Hartweorii* Wats.
Royal Arches.

No. 10,474. *Castilleja pinetorum* Pres.,
det E. Zeile. Royal Arches. Drawing from this.

Yosemite Valley, 4000 ft.

- A man came into camp just now who said he worked in the lumber camps where Redwood [= *Sequoia gigantea*] had been logged. I inferred from what he said that it was in or near the Fresno Grove Big Trees, tho' he did not know the ^{particular} *Sequoia* stands by name. He spoke of the place "Sugar Pine" and the "California Mill"; of the lack of seedling *Sequoids* when he worked there 30 years ago; of the dense thickets that he found when he went back a few years ago. The great height of the stump is in some cases due to falling the Big Trees when there is 6 or 8 ft. of snow on the ground, the snow making a "bed" for the fall of the great trunks which would otherwise fracture so badly as to be worthless.

May 27, 1924.

Mariposa 21

No. 10,475. *Lolium douglasii* Greene var. *nevadensis* Wats.

Granite sand drifts, Royal inches.

Prostrate.

No. 10,476. *Collomia grandiflora* Dougl.
Corolla pale apricot-color.

No. 10,477. *Lepidium densiflorum* Schrad.

Granite sand drift; Royal inches.

No. 10,478. *Oenothera strigulosa* T. &

O. contorta Dougl. With 10,477.

No. 10,479. *Gilia* ^{capitata Sims ssp. *mediomontana* V. Greene} ~~*achillaeifolia* V. Greene~~

= *G. staminea* Greene. With 10,477.

No. 10,480. *Athyrium pusillum* Greene
With 10,477.

No. 10,481. *Calochortus venustus* Dougl.

Inky blotch just above gland.

Petals clear white! With 10,477.

No. 10,482. *Rhamnus rubra* Greene ^{Yosemite C. White} Cont.

on p. 58. Slender stemmed bush 5 to 8 ft.

high. Branchlets of the season red-dish. Calyx-lobes acute, the central longitudinal ridge inside very prominent. Anthers with a black longitudinal band.

- Notes on the valley floor:

Capsella bursa-pastoris Moench.

Populus trichocarpa

Quercus lobata

Plantago ovata

Libocedrus decurrens

Pinus ponderosa

Prunus demissa, common.

Viola blanda Willd. exactly same
as 10,436, Crane Flat.

- *Eriodictyon californicum* Greene.

Cont. from p. 8, no. 10,432.

- Perhaps more is compressed into the walk up the trail to Nevada Fall than any other part of Yosemite. The great area of quiet or comparatively quiet water at the angle of the cañon between Happy Lake and the Vernal Bridge; great trees rising from the shore, Black Oak and Douglas Fir, framing it wonderfully, the great granite wall behind, is very fine. Then the Mist Trail; Vernal Fall; Silver Apron with its water curls playing in the spray of the gorge; then over the Silver Apron footbridge with the entire Merced River shooting underneath in a narrow funnel; then on up the bottom of the cañon to the view spot of the Nevada Fall where the beauty of it shows to great advantage. I am much impressed by the thundering force of the Vernal. It is as if there were let loose a kind of unfamiliar power, a gigantic force that aroused a sense of strange or uncanny things not reckoned as of our world.

The birds are here in great plenty and very tame. A Steller's Jay came into camp early this morning to get breakfast. He was busy, tho' alert to danger - and then a Robin, who had squatter's rights in the camp, drove him out!

A remarkable bird, Western Tanager, ^{-viciaria (Wilson)} *Piranga ludoxi* that I had never seen before perched for a moment on the edge of the butter pail within 3 feet of me. His ^{pure} canary yellow body and head with red top is very beautiful and certainly striking and distinctive.

Below Elkhorn sta. a linnet, seeking water in that dry country, flew to the edge of a large concrete box that held a little water, surveyed the vicinity for danger, went down into the bottom for a few sips; came back to the rim of the box to do sentinal duty for a moment; went back to the bottom; came back to the rim, (and possibly? scented danger), then flew away!

Hiked up the Snow Creek trail to the top. Noted on the way:

Cornus nuttallii, near Mirror Lake.
Tridactylon glutinosum, up to about 5500 ft.
Arbutusaphyllon mariposa, " " "
Umbellularia californica, " " "
 (scarce), 6000 ft.
Castilleja (no. 10,474)
 frequent, forming spots here and there, as high as 5500 ft.

Quercus chrysolepis and *Q. vaccinifolia*. At the top of the trail where we came into plateau country *Q. vaccinifolia* occurs. It is 2 or 3 ft. high and fairly typical as to leaf and habit, with several slender stems from base. It grows larger as we descend, finally becoming a considerable tree. All the way down, the leaves increase concurrently in size and some of them typically serrate. The leaves of the bush of higher altitudes are not only small but entire.

As we strike the high plateau trail the sensations in the forest are reminiscent of days in the high Sierran country; when one is away from telephone, telegraph, daily mail and all such things for weeks at a time. One of the sweetest delightful of all these sensations is the forgetting of the days of the week or month. Cont. p. 28.

- With all my searchings thru the forests I have never collected *Allatropa virgata* Gray (Sugar stick) nor ones. I have ^{long} been hoping to find it this trip.

- Cont. 10,446. Carpels simply approximate by their ventral edges, not united or only lightly connivent. This is a very remarkable fact and is noted in the flowering stage. The sepals are reflexed or recurved. This species also noted at Curtin Meadows, Fernbrook.

No. 10, 482a. *Linanthus dichotomus*. Valley floor.

No. 10, 482b. *Antennaria*
Silver Spoon, above Vernal Fall.

- A sort of Grackle with orange body, black and white wings, and brown head is very common here. It is Western Tanager. *Piranga ludoviciana* (Wilson), just now there appears some Clark Crows, gray woodpeckers with a white band or ring on the throat. The grackle comes into camp to feed on bread crumbs and the like.

- Hodgdon Ranch. Joseph LeConte says that my Curtin Meadows (I took the name from a sign above the gateposts) is Hodgdon Ranch of the maps and that Carl Inn is an entirely new place. The maps show a road from Hodgdon Ranch to Hetch-Hetchy. There is a road from Carl Inn to Hetch-Hetchy. I saw no road from Curtin Meadows turning off - not even an old one, but I may have missed it. LeConte says that the road has been quite changed. See p. 46, 35.

- Hike up the Snow Creek trail, cont.
from p. 25.

- *Phacelia* ~~leucantha~~ many-
stemmed and so, bushy, $2\frac{1}{2}$ to $3\frac{1}{2}$ ft. h.
Common on the rocky slope.

No. 10,483. *Asclepias cordifolia* Jepson.
Talus, Snow Creek trail.

No. 10,484. *Phoradendron villosum* (Nutt.)
Nutt. sp. villosum. Very common on *Quercus*
chrysolepis, which is growing on the walls.

No. 10,485. *Cirsium californicum* Gray.
Gravelly or sandy granite, talus.

No. 10,486. *Arctostaphylos patula*
Greene.

= *A. sparsiflora* Nutt.
No. 10,487. *Arabis arcuata* Gray.

No. 10,487a. *Cryptantha* ~~gomeri~~ Torr.
muricata Nels. & McBr.

No. 10,488. *Salix Jepsoni* Sch.
Along water's edge, Snow
Creek, $2\frac{1}{2}$ to 4 ft. h.

No. 10,489. *Castanopsis sempervirens*
Kell. Plateau, Snow Creek.

No. 10,490. *Amelanchier* ~~alnifolia~~ Nutt.
Along rivulet. ^{Mariposa Co.} ~~alnifolia~~ ^{pallida} ~~Jepson~~.

No. 10,491. *Lappula nervosa* (Kell.)
Greene. This barage grew on the plateau
in open pine forest.

No. 10,492. *Garrya Fremontii* Torr.
Leaves very clean and bright-
yellow-green. Common, on the walls.

No. 10,493. *Prunella* ^{virginiana var.} ~~dermissa~~ ~~Nutt.~~
This has passed out of fl. on
the valley floor.

No. 10,494. *Epilobium minutum* Lindl.
Moist spots, borders of brush,
Snow Creek plateau.

No. 10,495. *Gilia pungens* (Torr.)
Crevices of the granite slope.
Linanthus pungens (Benth.)

= *Leptodactylon pungens* Jepson.
No. 10,496. *Thysanocarpus curripes*
Hook.

No. 10,497. *Scrophularia californica*
C. & S. var.

No. 10,498. *Arctostaphylos* maniposa
Sudley. To 6000 ft

No. 10,499. *Pellaea mucronata* (A.C. Eaton) DC.
Eaton var. *mucronata*
This fern grew in crevices of
the granite rocks.

No. 10,500. *Cryptantha simulans* Greene
Granite sand, on the talus.

No. 10,501. *Lotus strigosus* Greene var.
hirtellus Ott. Granite sand, talus.

No. 10,502. *Phacelia humilis* T. & G. =
Hoover.
P. doiana Johnson Granite sand, talus.

No. 10,503. *Lonicera*

Leaves, except the lowest, in cor-
nate-perfoliate pairs. Corolla canary
yellow. Lower lip 4-lobed at apex;
upper lip narrow, recoiled, that is
coiled up like a spring. Bushy growth,
forming dense clumps 4 to 6 ft. h. on
the walls. Not common, but frequent
- in some places. Its habit is wonder-
fully different from *Lonicera involucrata*
which has a single stem

and climbs. I do not notice that this
climbs.

No. 10,504. *Malacothrix floccitosa*
Granite sand, talus. Cont. below.

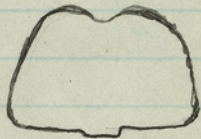
No. 10,505. *Cheilanthes siligiosa* Maxon
(Det. Tryon, Jr., 1958)
This fern grew on the talus

under edge of granite boulders.

No. 10,506. *Calochortis leichtlinii* ^{Don}
~~var. *leucostachya* Dougl.~~

- Cont. no. 10504. Petals 5-ribbed longi-
tudinally, ribs (calloused?) prominent. Pappus
caducous.

- Cont. no. 10,482.
Filaments triangular.
Pharisma ruber.



Petal - distinctly
notched at apex.

No. 10,506a. *Sarcodes sanguinea* Torr.

Two miles above Gentry sta. See p. 16.

No. 10,507. *Smilacina stellata* var.
sessilifolia Herbage quite glaucous!!

6600 ft.

6300 ft.

Leaves in 2 ranks, not always perfectly so, but commonly. I should say always with a majority of the leaves in 2 ranks. Valley floor, moist-shady places. Flowers nearly an enamel white. Stems erect!

No. 10,508. *Geranium* ^{= *G. nervosum* Rydb.} *incisum* Nutt.

Corolla pink. Shade on s. sandy places. Valley floor.

No. 10,509. *Viola purpurea* Kell. ~~see fine~~
ssp. *xerophyta* B. & C. ined.
~~from~~ 2 mi. e. of Gin Flat.

Corolla yellow, the lower petal with brown nerves at base. Lateral petals with a dense patch of short hair-like processes at middle on upper side. Sandy summits, granite sand.

No. 10,510. *Pedicularis semibarbata* Gray.
Rocking Boulder, between Gentry and Gin Flat.

No. 10,511. *Collinsia parviflora* Dougl.
Not *C. torreyi* Gray. With 10,509. See p. 39.

No. 10,512. *Arctostaphylos* pat-

May 30, 1924.

ula Greene. Berries, some of them, laterally flattened like those of *A. stonfordiana*. A point of relationship with 10,509.

No. 10,513. *Nemophila spatulata* Cov. ~~sup. p. 39.~~ Small, compact, forming characteristic tufts in moist granite sand on the forest floor. With ^{No. 10,509}
No. 10,514 *Lewisia kelloggii* K. Brand.

Stamens 23; style-branches 4; petals 8 in one fl. examined: also sepals 4, glandular-denticulate! Another flower: style-branches 5; stamens 24; petals 8. I see no sign of a joint on pedicels, structural or otherwise.

No. 10,515. *Veronica peregrina* L.
Cont. p. 39. Crane Flat. Moist mdw.

No. 10,516. *Minimus guttatus* DC.
Crane Flat, moist mdw. (6300 ft.)

No. 10,517. *Galium*
Crane Flat, moist mds.

No. 10,518. *Lewisia triphylla* ^(Wats.) ~~Rob.~~
Grin Flat, summit, 2 mi. e.

No. 10,519. ~~*Chenopodium*~~ *Monolepis Nurralliana* (Schub.) ~~Greene~~
Greene

Cont. p. 39. This chenopod grew about
the old corals at the J.B. Curtin mds.,
Frembrook. Fls. in close clusters. Stamen 1.

No. 10,520. *A. cusickii*
Allocahrya californica Greene.
= *A. vallicola* Jepson. With 10,519 (*A. cusickii* var. *vallic.*
cola Jepson.)

No. 10,521. *Linanthus ciliatus*
Greene. Frembrook, opens in the
forest.

No. 10,522. *Hemiaria cinerea* DC.
This caryophyll with 10,519.

No. 10,523. *Plagiobothrys torreyi*
Gray. This Boraginaceae grew on sandy
open flats at Frembrook. Cont. p. 39.

No. 10,524. ^{= *Microstoria*} *Collomia gracilis* Dougl.
Sandy open flats at
Frembrook, near Hodgdon Ranch.

- Curtin Meadows may not be Hodgdon Ranch
(see p. 27) as it may be with the road
branch to Tholumne Meadows changed. However,
it must be not far from the old Hodgdon
Ranch. (cf. Stanislaus Natl Forest map, where
Hodgdon Ranch is shown about 1 1/2 mi. S. of
Carl Jun.)

No. 10,525. *Mentzelia dispersa* Wats.
Sandy open flats at Frem-
brook. Stamens 12, 16, 15.

Petals yellow, with an orange spot at
base.

No. 10,526. *Silene californica* Durand.

This crimson-red *Silene*
is always low, here; in open sandy
spots in the forest or half-shady
places. Petals unequally 4-lobed,
the lateral lobes or teeth smaller.
Crests 2, like oblong mounds, only
their very tips free.

No. 10,527. *Senecio aronicoides* DC.

Open sandy spots in forest
up to 3 ft. h. Heads in compact

clusters, not expanding or loose as seen
here at this stage. See p.

No. 10,528. *Trifolium repens* L.

Abundant in the J.B.
Curtin Mtns., Hemlock. On margin,
and evidently somewhat spontane-
ous in semi-protected areas,
or areas partly under cultural or
human influence.

No. 10,529. *Trifolium pratense* L.

Spontaneous with 10,528. Evidently
under similar conditions.

No. 10,530. *Sanicula tuberosa* Torr.

Forest floor; tubers the size of *S. tuberosa*.
Branches very divergent!

No. 10,531. *Fragaria californica* C. & S.

var. *crinita* Hall
Shade of forest, Hemlock.

No. 10,532 *Cerastium vulgatum* L.

This caryophyll is associ-
ated with 10,519. See p. 42.

No. 10,533. *Stellaria media* (L.) Cyrill.

This caryophyll with 10,519.

No. 10,534. *Lithophragma affine* Gray.
Shade of open forest.

No. 10,535. *Montia Claytonia depressa*

(Gray) Rebsd. This belongs to the aggregate
M. perfoliata Don. It looks exceed-
ingly unlike any form of the coastal
area. The plants form very remark-
able rosettes, not flat ones, but
low real rosettes, the central leaves
in extreme symmetry and short,
the leaves outward a little larger,
the peduncle-like stems of the outer
leaves much larger than leaves
and subequal; the perfoliate
leaf sometimes perfoliate, sometimes
cleft clear to stem on one side;
and with intergrades between
these two stages. — all on one indi-
vidual! All the plants which I
am now noting are of the sunny
opens in the woods. In the thicker
woods the plants are still small

38 Curtin Mdus., = Hodgdon Ranch
near Tushumne grove.
But less rosette-like or not at all
rosette-like!
= *Microsteris*
No. 10, 536. *Gilia gracilis* Hook.

Pine woods, in more open
spots. Fernbrook. Style shortly 3-
cleft. Stamens inserted high in tube,
all on a level except one higher
than the others. All corolla and
essential organ parts glabrous.
Corolla limb white, its tube greenish-
yellowish; lobes emarginate. Calyx-
lobes in age splitting down through the thin
membrane and strongly recurving beneath the
capsule.

No. 10, 537. *Hemizonella*

Pine woods, in open.

- *Adenocaulon bicolor* Forest floor.

No. 10, 538. *Scutellaria tuberosa*

Bth. Forest floor, open pine woods.

No. 10, 539. *Herniaria cinerea* DC.

Prostrate. Calyx-lobes 5, un-
equal, that is no two of a size, but two
distinctly larger than the others. Ovary
with a very short style. Stamens 3.

Tushumne Co.

May 31, 1924.

4703 ft.

39

- Cont. no. 10, 519. Perianth none or apparently
so as observed in the field. Style short
with 2 style-branches.

- Cont. no. 10, 523. Throat with 5 curved
or crescent-shaped or ^{of corolla} somewhat horse-
shoe shaped crests, these yellow, the
corolla white. Stamens inserted below
the crests. Leaves a rich dark green!

- Cont. no. 10, 515. Lower lip with the mid-
dle lobe very narrow, the lateral lobes
similar in size to the upper lip. Stamens
2, upper.

- Cont. no. 10, 513. Cor. whitish or very
pale blue, commonly with a small
or faint blue spot at apex, purple
dotted below. Stamen filaments with
a small pair of crests base,
the crests cut into fine ^{cat} bristles.
Ovary with straight hairs.

- Cont. no. 10, 511. Cor. tube with a slight
hairy ring at point of insertion of fil.
Sterile stamen inserted at very base of tube,
quite oblong, about $\frac{1}{2}$ mm. long.

40 Curtin Mtns., = Hodgdon Ranch,
near Tolumme Grove

No. 10, 540. *Spergularia rubra* (L.) J. & C. Presl.
Corolla at Curtin Mtns.

No. 10, 541. *Hemizonella*
Very common on the granite
sand in opens in the incense
cedar grove bordering Curtin Mtns.

No. 10, 542. *Capsella bursa-pastoris*
Moench. Forming rosettes in the
corolla at Curtin Mtns.; on granite
sand.

No. 10, 542a. *Erodium cicutarium* L.
Her. Curtin Mtns. near E. bathys. Curt. Mtns.

No. 10, 543. *Lupinus stiversii* Kell.
Wings and keel pink,
banner yellow! Granite sand, in opens

No. 10, 544. *Vicia californica* Greene.
See p. 45.
Granite sand slope, opens in forest.

No. 10, 545. *Ranunculus occidentalis*
var. *eisenii*. Shade of oaks.

No. 10, 546. *Equisetum arvense* L.
Open in forest. Moist runway.

No. 10, 546. *Ranunculus*
Leaves thick! Moist spots.

Tolumme Co. June 1, 1924. 4700 ft.

41

No. 10, 547. *Gynoglossum occidentale* Gray.
Corolla tube cylindric, abruptly ex-

panded into a dilated throat; cor.-lobes
short. Stamens equalling cor.-lobes; style
about as long as anthers. Corolla
brownish-pink! Crests thickened, 5,
distinct, shorter than the stamens, inserted
with stamens at base of short throat. Sandy
opens in forest.

No. 10, 548. *Polygonum bistortoides* Pursh.
Moist mchrs. at Curtin Mtns.

- Cont. no. 10, 527. Compactness of infl.
due to lack of development. Leaves purple
beneath! green above. Open forest.

No. 10, 549. *Iris*
Open hill slopes. Flowers yellow,
lavender, pink!

No. 10, 550. *Mimulus bicolor* Hartw.
var. *bicolor* Eastw. Corolla crimson, with
deep red-purple spots at the base of
each lobe, in the case of the lower lobe
almost covered by 2 yellow spots which
run down the palatal folds. Lobes un-
gulate, that is sharply notched!!

42 Curtin Meadows, = Hodgdon Ranch,
near Tolumne Grove
No. 10, 551. = *Hesperis tridentata* Torr.
Potentilla congesta Benth. var.
tilingii Jepson. Granite sand slopes, opens in
the forest.

No. 10, 552. *Lappula velutina* Piper
Sep. 45. Corolla a bright royal
blue. Granite sand, open slope.

No. 10, 553. *Iris missouriensis*
Open granite sand slope.

No. 10, 554. *Sanicula*
Leaves glaucous.

Open flats in forest. Cont. below.

No. 10, 555. *Scirpus congdonii* Britt.
Moist meadows.

No. 10, 556. *Veronica americana*
Schw. By streamlet.

- Cont. no. 10, 532(?). Herbage hairy.
Stamens 10. Styles 5. Petals white,
cleft (about $\frac{1}{3}$ way).

- Cont. no. 10, 554. In gathering this
lost the open with the finely cut
leaves lose water by transpiration
so quickly that the lobes curled

Tolumne Co. June 1, 1924. 4700 ft. 43

almost instantly - even before it could be
placed in press; while the ones with
broad segments did not in the
same interval of time curl scarcely
at all.

No. 10, 557. *Viola lobata* Bth.

Petals canary yellow, all
dark-veined towards base. Lateral petals
with a patch of short densely placed
protrusions, not in middle of petal but
just off middle towards upper side.
Open forest floor; moist spot.

of Crane Flat
- *Calochortus* (no. 10, 442) nudus
Watson, the little white-flowered
one, nestling in the ground, is
common in the denser portions of
the *Pinus ponderosa* woods at
Curtin Meadows.

- Curtin Meadows are long and narrow,
curving southwesterly from the Yos-
emite road. There is marked zonation
of vegetation. The Yellow Pine forest

borders the meadow on the south side, its demarcation line very sharp. It has an understory of white fir, with an admixture of Sugar Pine. The slope rises sharply here. Between the forest type and the meadow type is a narrow band of *Rhododendron occidentale*, regular and even. On the northerly side of the area, the slope rises gently from the meadow formation, the slope being openly wooded with Incense Cedar. The oaks are broad and here I collected:

Hemizonella (no. 10,541) which is more abundant and larger than I have ever seen it elsewhere. Also nos. 10,543; 10,544; 10,547; 10,549; 10,551; 10,553; 10,545. With the Incense Cedar is a little *Quercus californica*; and higher up the common forest types.

no. 10,558. *Lathyrus longisectus* Kell. var. *aridus* Jepson. Keel and wings white; banner pink with a fine mesh of darker veins. with 10,547. *Stipules* lanceolate. *Stems* zig-zag. Leaves very narrow. Fls. about $3\frac{1}{2}$ lines long.

[Cont.]

no. 10,544. *Vicia californica* Greene. Banner purple, wings and keel blue-purple; Fl. 6-7 lines long about. Keel with a strongly marked somewhat inflated fold on each side near tip, these and the tips blue-purple, rest of keel white or whitish.

- Cont. no. 10,552. *Cress* ^{white or whitish,} long-blond, recurved at apex and notched at apex, densely white-hairy on the upper surface.

- Perhaps 2 miles down grade from Curtin Meadows, one runs into Bart Inn. Here there is a fork of the road to Hatch/Hatchy and Tioga Road. This point is Carl Inn (Hodgdon Ranch of the Topographic Map). ^{Cont. see p. 27.} Next we pull up to Crocker's Ranch (now Sequoia), where there is likewise a fork of the road to Hatch-Hatchy. Then mostly a long down grade to the crossing of the South Fork Tuolumne River (where is the Berkeley Municipal Camp) and then a little further down some open flats that have been logged (Harden Ranch), where is an old sawmill. Then the middle fork Tuolumne; then Buck Meadows, something of a village (store, garage, hotel); where there is a branch road south to Green Lake and the Coulterville Road. Next comes Smith sta., an old farm and former stage-stop, now passed almost unnoticed; a road here branching off to Coulterville. Next comes Groveland,

June 1, 1924

this like Buck Meadows on the railroad, a considerable mill town for the mountains, at least with many hotels - mostly for the Yosemite tourist trade. Next Big Oak Flat, an old-time mining village; then Priest's, at the top of the grade above Priest's Hill. A new road, a truly fine road with interesting outlooks and regular easy grade 9 miles long (to Tuolumne River bridge) now replaces the old steep wagon road. At the bottom we camp on the lower river bench.

- Priest Hill is all chaparral.

No. 10,559. *Linanthus filipes* Bth.

Dry flats, Harden Ranch; abundant. Opens. Cont. p. 48.

No. 10,560. *Scutellaria* ^{*siphocampyloides*} ~~*angustifolia*~~ Th.

Dry stream bed; under edge small rocks. Fls. blue. Both pairs of filaments on upper side, lying closely approximate, their edges coarsely connivent, the style lying between

3550 ft.

and behind the connivent margins of the middle pair. Harden Ranch.

✓ No. 10, 561. *Convolvulus fulcratus* Greene. Cor. white. Stems trailing over the ground of the dry flat. Harden Ranch.

✓ No. 10, 562. *Boissduvalia stricta* (A. Gray)

Greene. Dry flats. Harden Ranch.

No. 10, 563. *Herniaria cinerea* DC.

Dry flats. Harden Ranch.

No. 10, 564. *Galium*

Dry flats. Harden Ranch.

✓ No. 10, 565. *Lotus douglasii* Greene var. *nevadensis* Ott. Harden Ranch; dry flats.

No. 10, 566. *Vaccinium occidentale* Gray.

Dense bushes 2 to 3 ft. h.

in the wet mds., Curtin Mds.

- Cons. no. 10, 559. Cor. pink, its tube funnelform, its lobes rotate. Anthers yellow; filaments inserted in throat, the adnate portion freely

hairy; the adnate portion not running down into tube.

Shaw's Flat. Cont. from p. 7.

- *Tragopogon parvifolius*.

Knight's Ferry.

- *Photinia arbutifolia*

Tuolumne River, June 2, 1924.

No. 10,567. *Senecio douglasii* DC.
Jacksonville. Lower
river bench.

= *Asymmetricus* Sheld.
No. 10,568. *Astragalus leucopsis* Torr.
var. *asymmetricus* ^{Jones} Knight's Ferry. 3-4 ft. h.

The clusters of pods in a panicle
make a distinctly musical sound
under the influence of the wind.

No. 10,569. *Brassica* ^{*geniculata* Ball} ~~*insecta* Meisn.~~
5 ft. h. River bench
of the Stanislaus at Oakdale.

No. 10,570. *Datura meteloides*
DC.

with 10,569.
No. 10,571. = *A. asymmetricus* Sheld.
Astragalus leucophyllus T. & G. Mountain House, Alta-
mont Pass, Alameda Co., c. 300 ft.
= (*A. leucopsis* Torr. var. *asymmetricus* Jones).

-Barby, W.M. collected on Mt. Shasta
in company with Sargent and Muir,
Sept. 7, 1897. See label later *shastensis*.

Vacaville, June 9, 1924.

No. 10,572. *Glycyrrhiza lepidota*
Pursh. Pear orchard at Little G.

No. 10,573. *Datisca glomerata*
B. & W. Bed of stream, conifer
bottom, Weldon Cañon, 4 1/2 ft. h.

No. 10,574. *Cirsium constrictum* Harms. &
Gray. ~~*C. constrictum* Greene~~
Crimson Beads 2 to 5 ft.
h. Chaparral slopes. Weldon Cañon.

No. 10,575. *Psoralea macrostachya*
DC. with 10,573. 6 ft. h. &

No. 10,576. *Antirrhinum vagans*
Gray. Open in brush, hillslope,
Weldon Cañon. Erect, 2 to 3 ft.
h., often several stems from the
base.

No. 10,577. *Pentstemon lem-
moni* Gray. Bushy 2 to 3 ft. h.

Sterile stamens hairy on upper
side, but extended out of throat
in such a way on lower side
of corolla that insect entering
must rub against this brush.

Weldon Cañon, lower part? See notes
with spm.

- I noted *Aristolochia californica* along wagon trail, about $\frac{1}{2}$ mi. above the Dix settler (at first fork of cañon) on trail to summit of ridge. Very shrubby plants.

Gutierrezia glomerata B.W. is in the cañon bottom below Dix's. *Salvia spathacea* Greene is quite common in the brushy lower part of the cañon. It is about one month out of flower. The only flowering plants found were on the edge of a settler's clearing where second-growth had occurred from plants cut off earlier.

Nov 10, 578. *Salvia spathacea* Greene. $2\frac{1}{2}$ to $3\frac{1}{2}$ ft. h. Stems simple. See p. 113.

Nov. 10. 578a. *Calycanthus occidentalis* H. & A. Flowers smelling like over-ripe fruit (J. M. Saunders) or like the must-heap at a wine-

cellar (W. I. Gipson).

- Judge Platt says that Johnny Lyons, whose father married a Paíno girl in early days, came into possession of a large part of the Rancho de las Pintas in Vaca Valley and in early days sold the main portion of the valley for \$600⁰⁰, a yoke of oxen and a jug of whiskey!

- Ribes revision of Janczowski. As far as the Californian representatives are concerned it is a rather poor thing. His determinations are much confused so far as our sheets show. See his det. of Hall 1967 (Palomar Mt.) as "*R. menziesii* Pursh var." which is clearly *R. amarum* Muhl. - cont. p. 200.

- Gustav Eissen. Coll. at Honey Lake in 1891 (cf. *Conanthus arctoides* in Herb. U. C.

- *Asterina tridentata*. grazed by sheep in fall 1911 (J. M. Ag. Res. 28:108).

Berkeley, June 20, 1924.

- No. 10,578b. *Lonicera involucrata*
var. *californica* Jepson. Hamil.
In gulch. Common in brush
on north slope. Joyce M. Sam-
nders. June 20, 1924. Berkeley.

Mt. Davidson, June 22, '24

- No. 10,579. *Plantago lanceolata*

- No. 10,580. ^{*Horkelia*} *Potentilla californica* ^{Greene.} ~~Lehm.~~

- No. 10,581. *Cirsium* ^{*vulgare*} ~~edgely~~

N. Hillslope 4 to 5 ft. h.

- No. 10,582. *Cirsium* ^{*watsonianum*} ~~*quercetorum*~~ ^{Jepson}
Hillslope, open.

- No. 10,583. *Eriophyllum confertiflorum*
Gray. Hillslope, open.

- No. 10,584. *Galium*

- No. 10,585. *Euphorbia* ^{*crenulata*} ~~*leptocoma*~~ ^{Engelm.}

- No. 10,586. *Brodiaea laxa*
^{*Tritelia*}

Open hillslope

Mt. Davidson, S. F., June 22, 1924.

- No. 10,587. *Allium dichlamydeum* Greene.
Open hillslope.
^{*Prunella*}

- No. 10,588. *Brumella vulgaris* L.
var. *laucolata* forma *iodocalyx*
By spring.

- No. 10,589. *Medicago lupulina* L.
Fls. yellow. Field near Mt. Davidson.

- No. 10,590. *Hypochaeris radicata*
With 10589. Cont. p. 57.

- No. 10,591. *Epilobium* ^{*watsonii* var.} ~~*franciscanum*~~
^{*undulatum*} Barbey. Moist flat.

- No. 10,592. *Centaurea militensis*

- No. 10,592A. ^{old field} *Madia sativa* Molina

- No. 10,593. *Lupinus arboreus* Sims.
Sandy field. Cont. p. 56.

- No. 10,594. *Aragallis arvensis* L.
^{*Navafractia squarrosa*}

- No. 10,595. *Silene squarrosa* H. & A.
var. *agrestis* (Benth.).

- No. 10,596. *Ausincia* ^{*intermedia* F. & M.} ~~*spectabilis*~~
F. & M.

This is the same as
the small-flowered spm. taken
April 18, = 10,356. No. 10,596 is A.
intermedia F. & M. acc. A. F. Howell.

Mt. Davidson, S.F., June 22, 24.

No. 10,597. *Geranium dissectum* L.

This is fruit and seed

of no. 10,359, Taken Apr. 18.

- *Sedum spathulifolium* was in flower. Its corolla is essentially choripetalous or nearly.

- The slopes of Mt. Davidson are gay with flowers: *Alnus dichlamydeum* is abundant; *Eriophyllum* (no. 10,583) has all the freshness of spring; *Holodiscus discolor* is in fresh flower; *Verascum lanatum* in flower; *Brodiaea laxa* and so on.

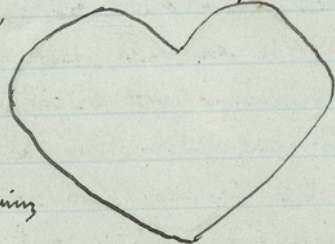
- Cont. no. 10,593. Corolla yellow. Keel ciliate from base to apex except on "acumen"; the apex very distinctly so if slit, appearing emarginate when spread out, that is, the two petals not united to apex. Corolla 7 lines long.

Mt. Davidson, S.F., June 22, 1924.

No. 10,598. *Sedum spathulifolium* Hook. Teratology: Petals 9; stamens 18; carpels 11, arranged in two rows, cockscumb-like, of 6 and 5; sepals 9. See also p. 56. Another flower: stamens 13; petals 6; carpels 6; sepals 6.

- Cont. no. 10,590. Beak nearly twice as long as achene, ending in an enlarged disk which bears the pappus. Scales of the receptacle thin, long and narrow, toothed on two (or one) sides below the ^{acute} apex.

No. 10,599. *Meutzelia Lindleyi* T. & G. U. C. Botanic Garden. No origin indicated on label. Drawing from this.

Moraga Ridge. Contra Costa Co.No. 10,600. *Rhamnus californica*
Moraga Ridge,
June 25, 1924.
Shrub coming in
full flower,
the bees swarming
about it.

Petal spread out!

Somewhat cordate in shape,
subacute at base.cf. petal of *Rhamnus rubra*, p. 21.
no. 10482, somewhat rhomboidal,
the cordate at apex, truncatish at
base. Also see sketch, p. 31.

- Brandegee, K. No one has ever
collected such remarkable
specimens of *Oenothera prima-*
veris Gray as Mrs. B. See her
wonderful flowering and especially
fruiting specimens from the
Mohave Desert. Also *O. trichocalyx*!

Sacramento to Oroville

July 18, 1924

- Left Berkeley July 17, 7⁰⁰ p.m. with H. A. Johnston; drove to Vacaville, camped at the
Little Oak ranch; up next m. at 4:30 and
off on the road at 5. Breakfasted at Sac-
ramento and went on via Roseville to Oro-
ville. One passes over the rolling plain
bordering the foothills about Roseville and
on. About Roseville and to Lincoln this
rolling or low-hilly country is composed
of the red-clay-gravel formation. It is
covered with an open stand of *Quercus*
douglasii and *Q. wislizenii* - rather
fine individuals for the most part.
One can see this stand stretching
back to the where the real foothills
begin, the stand merging then with
the *Pinus sabiniana* formation. Then
as we run north this stand sud-
denly stops and is replaced by the
grassy low-rolling plain, a plain
now barren of all woody growth. It
is to be noted that the igneous

formation crops out all over this plain in the form of low and small points of rock.

Oroville is situated at the very base of the foothills, inside the rolling or low-hilly plain. It is the only county seat of a mining county that is so situated, all the others being in the foothills. As we climb up from Oroville we are at once in the *Pinus robiniana* - *Quercus douglasii* formation.

Berry Creek, 2000 ft., Butte Co.

Cornus nuttallii

Pseudotsuga taxifolia

Fraxinus oregana (bark 3 1/4
ft. diam. at 4 ft.)

Pinus ponderosa

Ilex macrophyllum Pursh

Abies menziesii

Quercus chrysolepis

July 18, 1924.

Blue divariciflora. - noticed about
6 mi. above Berry Creek.

Merrimac, above, c. 4500 ft.

Quercus densiflora - Tan Oak.

Soapstone Hill, 5500 ft.

→ This is a point on the so-called "Walker Plain," ^{Plumas Co.} a high lava plain, which is very rough going for a machine. It is covered with dense chaparral of *Arctostaphylos patula*, *Castanopsis semper-virens*, *Ceanothus cordulatus* ^{Kell.}, and a little *Prunus emarginata*. Ditton said of the latter: "It's great for making a thicket." The most abundant species is *Arctostaphylos patula*.

From this high ridge one can see the high west shoulders of the of the peaks covered with sharply defined colonies of *Arctostaphylos patula* or chiefly that species. There is also a good deal of *Quercus vaccinifolia*.

Bucks Valley to Meadow Valley

5200 ft. Plumas Co. 3800 ft.

— Near Hart's Hill (1500 ft.) I noticed along a stream *Peltiphyllum peltatum*. This is Butte Co.

— *Eremocarpus setigerus* Bth. This is abundant in one place on the Walker Plain at about 5200 ft.

No. 10. 601. *Eremocarpus setigerus* Bth.

Rolling red-clay-gravel plain near Lincoln, ^{Placer Co.} These little plants, forming a rosette of leaves close to the ground with a small cluster of flowers in center, represent ^{almost} the only living vegetation on these plains — an area ten or fifteen miles in one direction and six or eight in the other.

No. 10. 602. *Quercus densiflora* H. & A.

Above Merriam.

No. 10. 603. *Castanopsis semper-virens* (Kell.) Soapstone Hill; c. 5300 ft.

No. 10. 604. *Lupinus ornatus* Dougl. var. *obtusilobus* (C. P. Sm.). Dense colonies of 7 to 11 acres

July 18, 1924.

in opens, stretching up to the summits of the hills. Soapstone Hill, c. 5300 ft.

— From Soapstone Hill we drop down suddenly and rapidly for six or seven miles to Bucks Valley. Spanish Peak is to the north of the Walker Plain. From Bucks Valley it is 4 or 5 miles to Meadow Valley, which is heavily forested with *Pinus ponderosa*. From Meadow Valley one looks up to the summit of Spanish Peak — a fine landmark from this side (Meadow Valley).

July 19. Meadow Valley to Rich Pt.

Joined a party of miners who are going into the Middle Fork Feather River. We hike over a wagon-trail cut through the forest. After 13 miles of hot severe walking we arrive on the bluffs overlooking the Middle Fork lying low in its rocky gorge, and go down to a camp on the south bank opposite the mouth of Bear Creek. A cable

is stretched across the river to run
bright across, and there is a
footbridge lower down, that is
nearer the water. Right above camp,
rising above the south wall, is
Dogwood Peak. Dogwood Creek
comes in four hundred yards as
so up stream.

From the summit down to the
river the slopes are finely wooded
with Yellow Pine, Sugar Pine, Douglas
Fir and Black Oak. Some of the
slopes, sparsely wooded, with clean
floor beneath, are highly attra-
ctive. For miles the floor, especially
in rather dense woods, is closely
carpeted with *Ceanothus prostratus*.
It requires a certain amount of
shade.

The camp is situated on Rich Point,
which is an old-time placer dig-
ging that was, in gold days, fab-
ulously rich.

River, July 20, 1924, 3000 ft.

List of Species about Rich Point.

- *Pinus ponderosa*, abundant.
- *Pseudotsuga taxifolia* - frequent.
- *Abies concolor* - frequent.
- *Quercus chrysolepis*
- *Cornus nuttallii* - frequent all through
the woods.
- *Cornus sessilis* Torr. There are bushes
of this along the river banks. It is
now in young fruit. The yellowish fruit
striking out singly all over the crown,
make an interesting shrub at this
time. See p. 69. No. 10,608
- *Trientalis europaea*
Very common on the north slopes in
the brush and forest.
- *Rhus diversiloba*, along the river
banks.
- *Acer macrophyllum*, common. See
p. 69.
- *Saxifraga peltata* Torr. This is
common along the river and its trib-
utaries. A fine bush of it, 20 ft.
high and spreading irregularly
20 ft. horizontally covers a small
cliff rising from near the water.

of the great pool just below the mouth of Dogwood Creek. Herman, the miner, tells me that the Indians use the leaves in which to wrap fish.

- *Verbascum thapsus* L. . Herman, the miner, uses the leaves of this as a tobacco adulterant, mixing it with tobacco leaves half and half.
- *Philadelphus lewisii* var. *californicus* Gray. See no. 10,628.

- *Amelanchier alnifolia* Nutt. Leaves serrate only apex. Resembles closely the usual Sierran form.
- *Gilia aggregata* Sp.
- *Silene californica*
- *Pinus lambertiana*, a little on n. slope.
- *Quercus Kelloggii* Newb.

- *Rubus vitifolius* C. + S. Abundant in the woods, n. slope.

- *Corylus rostrata* var.
The beak of the cob is short.

- *Alnus rhombifolia* . Haynes calls it Black Alder.
- *Pentstemon lemmonii* Upper lip very short, shorter than spreading recurved lower one. Sterile stamens hairy!
- *Salix densiflora* Bth. Along river.
- *Lithocarpus (Quercus) densiflora*
- *Adenocaulon bicolor* ♂ fls. 5-merous corolla; ♀ fls. 4-merous corollae.
- *Libocedrus decurrens* Torr. Infrequent.
- *Aralia californica* Wats. Moist steep north banks.
- *Mimulus cardinalis*
- *Garrya fremonti* Wats. Herman says: "The berries are eaten by quail. They live upon them when they drop to the ground."
- *Aquilegia truncata* F. & M. Woods.
- *Vitis californica* Bth. I did not notice any lobed leaves.

from the rocky walls. The berry is
first greenish white, then yellow, then
red, then black! 3000 ft.

✓ No. 10, 609.

This composite grew in the
rocky river bed, that is on the
first bench of slate. 3000 ft.

✓ No. 10, 610. *Angelica breweri* Gray.

Wooded hillslope. 5 ft. h. 3000 ft.

✓ No. 10, 611. *Polystichum monitum*

Var. *imbricans* wooded hillslope - 3000 ft.

✓ No. 10, 612. *Polystichum monitum*

The rhizomes of this fern
grew in rock crevices under boulders.
N. slope. 3600 ft.

✓ No. 10, 613. *Minulus guttatus* DC.

Moist-seeping spot on hillslope. 3600 ft.

✓ No. 10, 614. *Danorhiza nuda* Torr.

3600 ft.

✓ No. 10, 615. *Athyrium filix-femina*

This fern grew in a moist-
swale on steep n. slope. 3600 ft.

✓ No. 10, 616. *Tellima grandiflora* Dougl.

Sleep n. slope in the woods. 3600 ft.
No. 10, 617. *Ribes nevadense* Wall. Sleep

n. slope in woods. 6 ft. h. 3600 ft.
✓ No. 10, 617a. *Caryopteris* with 10, 617. *Sagina saginoides* (L.)
✓ No. 10, 618. *Juncus ensifolius* Wikstr. Karst. var. *hesperia* Fern.

Bed of Dogwood Creek, not
far above its junction with Middle
Fork. 3700 ft.

✓ No. 10, 619. *Boykinia major* Gray.

3700 ft. Moist banks Dogwood Creek.

✓ No. 10, 620. *Epilobium glaberrimum* Barb.
ey. 3700 ft. Herbage glaucous. Stems many
from the base, erect. Moist-banks Dog-
wood Creek.

✓ No. 10, 621. *Stachys alba* Gray.

with 10, 620. 3700 ft.

✓ No. 10, 622. *Carex*

This sedge grew in a rock
crevice in Dogwood Creek. 3700 ft.

✓ No. 10, 623. *Adiantum pedatum*

Steep n. bank, very moist. 3700 ft.

✓ No. 10, 624. *Athyrium filix-femina*

This fern grew with 10, 623.

✓ No. 10, 625. *Lotus torreyi* Greene.

Rich Point, Middle Fork Feather
Pumas Co.

This grew with 10,620. 3700 ft.

No. 10,626. *Agrostis diegoensis*, Vasey det. B. Crampton,
Mar. 72.
3700 ft. This grass grew with 10,620.

No. 10,627.

Styles 5. This caryophyll
grew in moist sand, ^{lowest} bench of Feather
River. 3000 ft.

No. 10,628. *Philadelphus lewisii* var.
californicus Gray.
3000 ft. See p. 68. Rock outcrops.

No. 10,629. *Cornus californica* C. A.
^{var. *marilandica* Jackson n. var.}
May. Berries blue! very blue!

Along river. 3000 ft.

— *Ceanothus integrifolius* H. & A.

The prevailing type of the Sierra Nevada; in the woods. It is being shade-killed on n. slope as the new forest, now about 50 years old, is establishing a more complete crown cover. The glands on the capsules are strongly developed; they serve to make the capsule triangular as seen from above, not with sharp but with rounded

River, July 23, 1924, 3000 ft.

angles to be sure - but still decidedly triangular. The capsules are eaten by the gray ground squirrels, says Sutton, who has been watching them.

— On the way in, I saw on the trail a single individual of the Scarlet Tanager. In the Sacramento Valley near Roseville I saw one Magpie.

— I followed the old water ditch from Rich Point around the contour of the mountain side to its intake on Dogwood Creek. From this point I went up stream about 150 yards to where the stream turns east. There is here a fine mossy cliff on the south side of the stream, luxuriant with *Peltiphyllum peltatum*, *Arctostaphylos californica* Wats., *Adiantum*

(No. 10,623), and *Limnolobos guttatus* D. C. The fine brawling stream, the great trees, the charming mossy cliff made an entrancing spot.

— One of the miners here is a young fellow, Frazer Edwards, about 18 years. He is a full-blooded Indian. He is very swarthy but with good regular tho' full features. He speaks soberly and deliberately, not talking a great deal. It is noticeable that he uses better English than the young fellows in the camp here who have come up from San Francisco. Frazer, as they call him, seems to me very intelligent. He lives, I think, at Berry Creek.

Spanish
Peak.

great shadowy
inside of the
if for evidence
seems me. I

no. 23 m.
lands

no. 24 m.

76 Rich Point, July 24, 1924.

3000 ft. Plumas Co.

No. 10, 630. *Brickellia californica* T. & G.
Rocky river bench of the Middle Fork
at Rich Pt.

No. 10, 631. ~~Plum~~ *Pteridium aquilinum* (L.) Kuhn
var. *pubescens* Underw.
4 1/2 ft. tall. Moist place, river
bench. Middle Fork Feather River.

No. 10, 632. *Festuca californica* Vasey

This grass, 4 to 5 ft. h., formed
a large colony in the open forest
around Deadman's Spr., on west slopes,
about 1/4 mi. each way. Leaves glan-
cous, becoming involute and as if
terete, very rough.

No. 10, 633. *Pyrola picta* ~~dentata~~ Sm.
Open forest.

No. 10, 634. *Chimaphila umbellata* Nutt.
Open forest

No. 10, 635. *Spiraea douglasii* Hook.
Stream bed, Meadow Valley. 3800 ft.

No. 10, 636. *Convolvulus villosus* Gray.
Gravelly banks, Meadow Valley.

No. 10, 637. *Castilleja miniata* Dougl.
This grows on the moist (cont. 80.
p. 80.)

Middle Fork Feather River.

77

I hiked into Rich Point in company
with H. A. Sutton who is interested in a
mining claim there. Rich Pt. was
placer worked in gold days. The slate
strata tilt upright across the river
and being eroded unequally make
natural riffle pockets comparable
to a miner's riffle box. One of
these clefts or cracks in the
slate strata at Rich Point occurs
on the old river bench. It is
about 8 ft. wide, 20 ft. deep and
about 160 ft. long. It was worked
in gold days and yielded \$93000.

The plan of the company here is
to lift the river out of its bed in
a flume for a distance of 800 ft.
or so and explore the pot-holes
in the river beds. There is a great
pool 5 or 6 yds. up the river with a
bar below it which is thought to
be very rich. For ages the heavy
gold nuggets brought down by

the stream have been dropped into these crevices while the lighter metals and rock have been carried on.

A year ago these people here lifted the river out of its bed for a short distance. They explored a pot-hole 15 ft. deep, and wider at bottom than at top. It had a crack in its side into which the nuggets of gold had been driven by the force of the rock-laden waters. As the pot-hole was exposed by pumping the gleam of the sun on this seam of gold made a very beautiful thing to look at they said. One might think the pot-holes would be filled by boulders ^{and} rubble, but the grinding swirling power of the waters is such as to throw them out and carry them on.

So I shall watch with

some interest to see what this gold pot hole in the Feather River yields.

cont. from bottom p. 76) Banks of the meadow streamlet. It is doubtless perennial by short offsets, but I really could not find any evidence, in the field, of perennial character, save in its short rootstock, which, apparently might have been developed in one season. Gales exceeds lanceolate calyx-lobes, these somewhat divergent. Calyx cut lower before than behind. Stems typically simple, ending in a single raceme, rarely with branching shoot at summit, forming a panicle of racemes. Meadow Valley.

No. 10638. *Epilobium* ^{ad. to canyon Hausskn.} ~~californicum~~ ^{occidentale} ~~Moist~~ or rather swampy meadow, ^{Jefferson} Meadow Valley.

No. 10,639. *Scirpus*

This sedge grew in the swampy place with 10,638. Meadow Valley.

No. 10,640. *Malva rotundifolia* L.

Meadow valley, in old pasture.

No. 10,641. *Wyethia mollis* Gray
Buck's Valley & ^{Sandy forest floor} (cf. pp. 62-63 ante).

No. 10,642. *Trichostema oblongum*
With 10,641.

No. 10,643. *Emphytrix serpyllifolia* Pers.
Aphundages of glands white, rather narrow, deeply 2 or 3-toothed.
With 10,641.

No. 10,644. *Navarretia divaricata* (Torr.) Greene.
With 10,641.

No. 10,645. *Gayophytum lasiospermum* Greene.
With 10,641.

No. 10,646. *Linanthus barknessii* Greene.
With 10,641.

No. 10,647. *Polygonum*
With 10,641.

No. 10,648.

This grass grew in the colonies of *Lupinus* (10,604), lower slopes of Spanish Peak.

No. 10,649. *Erigeron inornatus* Gray
This composite grew in

82 ^{3500 ft.} Meadow Valley, July 25, 1924.

the igneous rock of Soapstone Hill.

No. 10,650. *Eryngium vallicola* J. P. S.
Lincoln.

- Hiked out over the mts. on Thursday, July 24, from Rich Pt. to Valley Mtn. On the trail going out I saw a deer before the deer saw me. It was coming slowly along the trail, placidly enough, but still always alert, its eyes sweeping its horizon constantly. It saw me but I had become ^{by then} a rigid stump in the forest and it was not frightened by my appearance. It then stopped in the shade of an oak tree (*Quercus californica*). I became tired (cont. p. 90.)

No. 10,651.

This grass grew on a hill slope, rather abrupt, which though dry now (on the surface) represents a springy spot in winter and more or less seepage in normal years. Vallejo, Sept. 13, 1924.

Berkeley, Aug. 5, 1924

83

- Dr. E. E. Allen, Professor of Mathematics in Occidental College, called today. He is such an enthusiastic admirer of my books on systematic botany that it was an embarrassment to listen to him. He said: "I attend the meetings of the botany club at the S. Cal. Acad. Sci. Dr. Davidson presides. The members bring plants to be named and Dr. Davidson names them on the spot. He is quite autocratic and I differed, I believe rightly, about a plant from Death Valley but he would not listen to me. I named by Coille."

He dislikes Smiley. It seems that Smiley while at the Gray Herbarium acted for Robinson once when Robinson was away. A packet came from Davidson saying. I think this plant

is so-and-so, but I would like to have it confirmed. Smiley answered and indicated a different determination. Davidson wrote in heat to Robinson saying: "I sent on this plant for your personal determination and here I get an answer from one of your underlings". Robinson quickly looked into the matter, confirmed Smiley's determination and so replied. But Davidson still dislikes Smiley. Smiley went to the meeting of the Botanical Club on his arrival in L.A., and found Dr. D. in complete control.

- William Peuland, student of A. Nelson at Wyoming, later of Harvard, instructor at Colorado Coll., to go back to Harvard for his Ph.D., just called. Came via the southern route (Mohave Desert)

from Colorado, visited Sequoia Park and Yosemite. I have given them* directions for seeing the Redwood Belt. Peuland seems a pleasant chap, with agreeable manner and decisive personality. - Aug. 18, 1924.

- L. E. Hitchcock called today. He assists Miss Mabel Pearson in the Pasadena High School. He has been in the Forest Service as a technical man for 10 years but left it on account of poor salary and being moved about. The lack of a permanent home is difficult when married, he said; expense and trouble of shifting. Trained at Yale. Said the turnover in personnel in Forest Service is 50% every five years. - Aug. 21.

- Fire. The Sept. claim that quenched forest fires (man-made) in the Plumas and Lassen National Forests brought also 75 lightning fires. (U.S. For. Serv. Cal. Dist. News letter, vol. 5, no. 38. Sept. 19, 1924.)

* He and his companion

— Left Berkeley at 7⁰⁰ a.m. with Mr. and Mrs. A. G. Freeman, Mr. Daniel Brown, James Wadsworth and the chauffeur Thomas. Went over Cobb Mt. to Clear Lake. I was surprised at the amount of water running down Cobb Mt. in a creek at Cobb P.O. over the shoulders of Cobb towards Clear Lake, ^{there} showed up some mesa-like country to left that ought to be good botanizing in the spring and early summer. *Cichorium intybus* is common at upper Lake. West of Blue Lakes we run along Cold Creek, I think it is, out to Catfella, thence n. to Bull ^{Creek} Flat at South Fork.

No. 10, 652. *Zauschneria californica* Presl. ^{ottosa} ^{gipsoni} On a rock sticking out of river bed at Richardson Grove. These plants are interesting as showing on the most

recent growth green or greenish leaves in contrast to the silvery leaves below. The green leaves are not glabrous but they are far less hairy than the ones below, which are white-silky. South Fork El River.

No. 10, 653. *Vitis californica* Benth.
With 10, 654.

No. 10, 654. *Epilobium angustifolium*
L. Seven ft. tall! Richardson
Grove, South Fork El River.

No. 10, 655. *Baccharis pilularis* DC.
^{var. consanguinea} (DC.) Wolf
Garberville. ♂ and ♀.
(Humboldt Co.)

We went into the great stand of Redwood at Bull Creek Flat and looked over the lower portion of it — a repetition of a most satisfying experience for us.

I have never seen deer in a dense Redwood forest, probably because of the lack of suitable

88 Bull Creek Flat, South Park Ex-
posed. Daniel

Mr. Rouen says that in the Sierra Nevada cattlemen find that watering troughs made of Sequoia gigantea logs poison cattle. I replied that this was due probably to the high tannin content.

The burls or excrescences on the trunks of Redwood are exhibited in the Bull Flat grove. There are of two kinds, tho' the two types probably pass into each other:

a, smooth or fasciated kind. In the lower part of the Bull Creek grove is a very large burl about 8 ft. long, 3 or 4 ft. broad and perhaps 1 to 2 ft. thick. It descends along the trunk from its origin about 10 ft. up, and is distinct from the trunk below. It is

River, Sept. 20, 1924.

89

smoothish. Its general shape and the appearance of the fibre suggest resemblance to fasciation in small plants.

b. rough or deeply fissured or checked kind. I noted one at Bolling Grove, ^{trunk} 50 ft. high, which carried six very large burls $1\frac{1}{2}$ to $4\frac{1}{2}$ ft. long and as wide to mostly half as wide, and attached completely, appearing as rounded excrescences of greater or less thickness. This tree had been beheaded at 50 ft. I suspect that it had snapped because of being weakened by the burl at that point. At least it looked that way.

— Kellogg, Albert. See Gray's tribute in Bot. Cal. sub Kelloggia.

No. 10,656. *Limonium californicum*
See notes with spec. ^{Marin} Sta.
at Manginita, Marin Co., bayshore.

No. 10,657. *Mentha pulegium* L.
Moist gulch bottom. Manginita, etc.
- Walked to Tennessee Cove today
with Cal. Bot. Soc. field party.

Cont. from p. 82.) of being a stump
and when the deer turned its head I stepped
over a few paces and put the
bunk of a tree between my-
self and the deer; then I
advanced quite closely to the
deer and when it turned its
head again I stepped out
into view (once more) and
became a rigid stump. The
deer was a little startled at
seeing the stump so near
but my rigidity was per-

fect and after a rather prolonged
examination the deer became
placid again and did not
move. Then I began to whistle
softly and the deer was instantly
alert and tremendously interested.
It looked around occasionally
because there was a slight
echo in the forest but its
attention always came back
to me. With its ears cupped
forward and its eyes shining
I never had so interested
an audience. I had gradually
fallen into Annie Laurie and
I may also say I never had
so complimentary an audience
because I cannot whistle a
little bit really! But it is
very hard being a rigid
stump so long, especially
with 30 pounds in your shoulder
pack and so I suddenly

92 [Valley Mdw. to Oroville, 25 July.]
called out: "Well! Annie Laurie
was quite a belle, wasn't she?"
At the sound of the human
voice the deer went off the
bank in one tremendous bound,
cleared a brush clump as
if were flying and was
gone as far as Mt. Ararat
in about 15 seconds.

Stopped all night at Valley
Mdw. Worked on the machine
next morning and started
off at about 11:30. Botany ^{2nd}
a little along the way to
Bucke Meadow or Bucke Valley
and got into Oroville a
little before sunset. Camped
in the municipal auto camp
which is a very noisy place,
being along the Western
Pacific railway tracks.
Started off next morning at
4:15. It is very fine

[Oroville to Berkeley, 26 July] 93
driving down the Sacramento
Valley at this hour in the
morning. The Marysville Buttes
stand out very sharply in
the clear morning air. South
of Marysville I pull out into
a side-road and make break-
fast. While my campfire is
always small and the
morning is very calm, there
~~are~~ these little cyclonic currents
characteristic of hot valleys
or deserts, and the flames
are thus licked out onto the
dry grass in a manner that
frightens one - not so much
from any real danger as
because of the potentialities
from carelessness. The grass
I scraped away but the very
roots in the soil burned,
so dry and parched is this
land. I drive on down

the valley, via Sacramento,
Little Oak Ranch and Susan
to Berkeley.]

- Dearth effects. *Umbellularia californica*, *Quercus wislizeni*, *Q. kelloggii* and *Q. garryana* var. *clam*-
aged by dearth in Sequoia Park
near Clough Cove, acc. to Ranger
Davis (Bull. Sequoia Park, no. 3,
22 Oct. 1924.). "Look as if fierce
brush fire had passed over them."

Cercocarpus ^{*betulaefolius*} (Nit. Mahogany),
foliage fanned by deer; bushes
picked clean last winter; new leaves
failed to put forth this summer.

Sugar and Yellow Pine, White Fir,
Incense Cedar, all without cones
owing to drought, he says.

- Fire Effects. *Lithocarpus densi-*
flora burned last year put forth
a heavy crop of acorns this year
on Howell Mt. acc. to Wade. Unburned
trees have few or no acorns.

- Went to Lodi* via Sherman Isl. and
Walnut Grove. An interesting route!
Lunched at the Walnut Grove Hotel
which has a fine dining room.
No. 10,658. *Rosa californica* C. & S.

Walnut Grove

- No. 10,659. *Equisetum hyemale* L.
var. *californicum* Milde
Forming pure colonies on the
leaves. Stems simple, rarely a
little branched. Isleton.

- No. 10,660. *Oenothera* ^{*hookeri* T. & G.} ~~*jepsonii* Greene~~
Sherman Isl.

* To lecture in behalf of the Save-the-
Redwoods League

- Fire. Bush and forest fires on National
Forests in Calif., Jan. 1. - Sept. 10, '24.
Lightning, 34 %. Smokers, 28 %.
(Cal. Dist. News Letter, U. S. Forest Service, vol.
5, no. 38 (Sept. 19, 1924.))

Old Cow Creek, circa 2000 ft.
near Whitmore.

- *Pseudotsuga douglasii*
 - *Pinus ponderosa*
 - *Arctostaphylos manzanita* Parry. Not crown-sprouting! Large!
 - *Arctostaphylos uva-ursi* Parry! Not crown-sprouting! Bunches in color now recalling those of Madrono (*Arbutus menziesii* Parry).
 - *Quercus douglasii* H. & A. Abundant.
 - *Pinus sabiniana*
 - *Ceanothus cuneatus* Nutt.
 - *Libocedrus decurrens*.
- In a cleared field alongside an orchard near Whitmore *Ceanothus frustulosus* covers the field with a remarkably even tho' not continuous carpet. Exposed completely to

sunshine - but this is near the central parts of its range.

- Left Berkeley, Fri. aft., Oct. 24; stopped over night in Vacaville. A brilliant day. Next morning showed signs of a coming storm. Drove up the Sacramento Valley. Camped for now stop near Germantown. Went on to Red Bluff and Anderson. Here I left the highway and took the road to Whitmore. The bridge over the Sacramento River is an imposing structure. The river is broad and fine. At this time the groves of trees on its banks are in their autumnal covering and give it a glorious setting - the luminous yellow of the ash, the golden yellow of Cottonwood, the light yellow of the willows with an occasional

dark green crown of a Live Oak interspersed made a wonderful picture. The next stream is not so broad but seems deep as it lies in a narrow gorge (Bow Creek). A

few miles further on I turn north-ly across the Millville Plains. This is a remarkable topographic feature, being a low plateau about ft. high, utterly destitute of woody vegetation, about 5 or 6 miles long and about as broad, rocky and rolling but not departing far from a general level; and with the characteristic foothill forest surrounding it closely on every hand and yet marked by a sharp tension line.

One comes down off the plains to Millville, a little town that goes back to gold days probably. Its school building is an interesting two story brick - a good-looking

solid building such as is not built nowadays in the foothills. From here one climbs along the general line of Old Cow Creek through the foothills, passing over a broad flat beyond Millville that is similar to the Millville plains but covered with a characteristically open stand of *Quercus douglasii* H. & A. I reached Whitmore after dark - a hamlet of 2 or 4 houses - and camped in the forest with some soft rain that night. The storm center in Washington had probably by this time moved south into Oregon and headed for California. The next morning I went on into the mountains, turned off on the Fern wagon-road, passed the power house of the Col. Northern Power Co. on Old Cow Creek and finally reached a ^{saw} mill in the forest where the Wriggots lived. At the mill I discovered they

had ^{sold and} left their places. I then found them at the house of a neighbor, a Mr. Ray. Mr. Weigart says:

The failure of the acorn crop is a blow to the raisers of hogs, for they depend on the acorns to fatten their hogs in the fall. In the foothills there is a belief that when the Digger Pine pollen blows at the time of the oak flowering the acorn crop of the White Oak (*Quercus douglasii*) is ruined. If there is North wind when the pine pollen is flying it is noticed that acorns set only on the south sides of the oak trees, there being none on the north side, or few. Some men believe so thoroughly that the pine is the cause of acorn crop failure that over their range they have cut down or girdled the Digger Pine (*Pinus sabiniana*) trees. It is claimed by them that the difficulty was in this way been largely obviated."

Mrs. Weigart (née Alma Ames) says "that the Millville Plains act as a 'warning box' and that cañons facing them receive their warm air and grow the Digger Pine; that slopes not facing them, at the same altitude, have no Digger Pine."

Coming into the mountains I met band after band of sheep going out, coming down from the high summer feeding ground. These sheep were moving right along. They are not stopping to nibble or feed along the way. The bands were long, with shepherds in the rear only, gathering up the lame or straggling sheep. But the main body seemed to sense the anxiety of their masters and were wasting no time as they moved down towards the valley. The

102 Whitmore to Berkeley, Oct. 26
great storm is plainly approaching
nearer. I drive on back to Whitmore
and Millville, thence across the
Millville Plains in the darkness,
which makes it difficult going, and
on to Anderson and Red Bluff. I
camp at Red Bluff with the rain
on the canvas of my tent all night
beating and the wild geese crying
over head all night. Enormous
numbers of them ^(the geese) are coming out
of the far north, just ahead of
this storm center, entering California
over the Shasta gateway. Their
call is the migration call and
I hear it so steadily that large
numbers must be coming in. Next
morning at four I am up, packing
my rain-drenched camp into the car
and filling up with gasoline
and oil for the run down the
valley. I drive in occasional
sharp showers and at other times

Oct. 27, 1924 103
in mist, keeping ahead of the main
storm center which had by this time
gotten near the northern borders of
California. Over the rice-fields and
willows there fly innumerable
flocks of wild fowl, as far as the
eye can see. I continue to drive
on south and reach Berkeley
about 4:30 Monday afternoon. By
Tuesday the storm had broken with
much violence here in Berkeley.

- No. 10,661. *Atriplex argentea* ssp. *expansa*.
Alkali horse lands near
Maxwell. Evert. Colusa Co.
No. 10,662. *Atriplex semibaccata* ^{Glenn Co.}
Willows Prostrate, forming broad
mats. Fruits red, berry-like. Rice fields.
No. 10,663. *Ammania coccinea*
Stem 3½ ft. high, with many
long lateral branches, these simple
but often nearly as long as main
axis. Rice field. Willows

04 Old Cow Creek, Shasta Co., near Whitmore
circa 2000 ft.
Oct. 26, 1924.
No. 10,664. *Striplotax patula* ssp *hastata*
Willows. Alkali land.

No. 10,665. *Quercus douglasii* H. & A.
Old Cow Creek

No. 10,666. *Quercus garryana*
Dougl. var.

6 to 14 ft. Old Cow Creek.

No. 10,667. *Arctostaphylos viscidiflora*
Pursh. Stout shrubs; not crown-
sprouting. Abundant. Old Cow
Creek

No. 10,668. *Vitis californica* Bth.
Leaves not sinuately lobed.
I noticed none such. Below
Whitmore.

Berkeley, Oct. 1924.

105

— *Orthocarpus purpurascens*. Called
"Santa Claus" by children at Oakdale.
Alma Ames Wriggall.

— Brandegee. K. The excellent char-
acter of her spms. when she chose
to make them: see *Navarretia pur-
purea* Benth. Near New York Ravine,
Eldorado Co., June '09. and more particu-
larly June, June, 1910, showing the
evolutionary dwarfs as well as well-
developed plants. See p. 115, cont.

- *Taxatolgy*. *Ericameria arborescens*
 Fasciated. Mt. Tamalpais, 2/22/1924.
 H. P. Chandler. U. C. Hb. (Gray) Greene.

- Fall of leaves. Time of fall of *Madroño* leaves
 in midsummer. Of *Quercus agrifolia*, all at
 once in March. Of "*maligenii*?"

- *Taxatolgy*. *Brodiaea multiflora*. Stamens
 6, staminoidea 6, per. segments 4. Spun. from Red-
 dog Valley, Plumas Co., E. Fr. 1875. See hb.

- Fall of limbs. Limbs fall from *Quercus*
sempervirens on perfectly calm days -
 days without perceptible air movement at
 the ground. Woodman often speak of
 narrowly escaping death. Dr. Maricek
 confirms my own field experience along
 this line.

- Common Names. - There occur in Pac.
 Rus. Press: 8 Nov. '24.

Grassy Death Camas.
 Meadow Death Camas.
 Mountain Death Camas.
 Foot-hill Death Camas.

Lepidium draba is called "Hell weed" in
 various parts of the state.

- Drought. Sugar Pine, Incense Cedar, Yellow
 Pine, White Fir, without fruit. Only conifer
 fruiting = *Sequoia gigantea*. Laurel, Live
 oak, Black Oak, Shin Oak look as if a fire
 had passed over them. Mountain Mahogany
 picked clean by deer last season; deer prefer
 it to other browse. - *Sequoia Park Bull.*
 no. 3, Oct. 22, 1924. Young *sequoias* turning
 yellow and dying of drought at Redwood Mtns.
l.c. Bull. 35, Sept. 10, 1924.

- Common Names. At the Botany Seminar
 last night Professor Hall used the
 name *Spikerweed* in lecturing (for
Hemizonia pungens) and Hayfield Tar-
 weed (for *Hemizonia lugensaeifolia*). It
 is convenient to use these common
 names. Altho these names, both, are
 my inventions, I use common names
 less than other botanists here I
 think. Some of the common names first
 used in my Man. (Tule Unit), I picked
 up about the state. See label of *M.*
canensis in herb.

Vaca Valley

Wm. C.

- Chamberlain of the old Creath Hawkins place says: "Even under cultivation blue adobe will crack down underneath the cultivation layer in the summer drought period. During these long drought years it has been worse and trees (orchard) have died out badly as it. He points out that, contrary to general opinion, apricot trees do better on the indifferent soils than any other fruit tree."

The Drought Years.

The climax drought year of 1923-1924 is still being talked about here, even though the autumn rains have been heavy and the hills are green.

Charley Stenensen says: "The 20-year Spring in Jatis Basin

November, 1924.

did not go dry this year. It decreased flow so that the run-way had to be kept cleaned out to insure flow but the flow was good under cover. It lies about $1\frac{1}{2}$ miles above the Lee Jatis house. About a mile above this is the Handy Year Spring. It went dry this year. Collins' Spring has never gone dry so far as I know. These springs lie so high in the mountains that they cannot derive their flow from this range (of the Vaca Mts.) but must get it from some distant source in the Coast Range such as Lake Co. Curiously, all the springs in the hills started to flow again this year, that is started their interannual flow, much earlier than usual."

Oakland Hills and Moraga Ridge

contra Costa Co.

No. 10,669. *Rosa gymnocarpa* Nutt.This bush is about $4\frac{1}{2}$ ft. h.About $\frac{2}{3}$ pods or tips naked; about $\frac{1}{3}$ with ^{sepals} persistent to this time.San Leandro Creek, at Pinhurst sta.
Valley Flat.No. 10,670. *Quercus morehus* Tell.Shepherd Cañon, about $\frac{1}{2}$ the distance between Havens sta. and Shepherd Match. Tree about 18 ft. h.

On old trail.

No. 10,671. *Quercus morehus* Tell.

About 300 yds. further up trail from 10,670.

- Favorable early rains and mild temperatures caused growth to start early this season: Shepherd Cañon:

- *Phacelia nemoralis* Greene. Shows its new rosettes on the ground.- *Vicia gigantea*. Unbranched stems have climbed 5 ft. h. This fall season!

Dec. 6, 1924.

- *Geracleum lanatum* Michx. Not a sign of it, so far, as new growth.- *Sanicula menziesii* H. & A. Leaf rosettes on ground.- *Lathyrus pubescens*. Is showing new growth, but from the ends of last season's stems! These 4 to 6 ft. high. This makes the species a "shrub"! But it must be watched to see what becomes of it. It may act only vegetatively.

Moraga Ridge.

- *Lotus glaber* Bth. Common on the ridge and now very green with leaves. The stems are slender, ascending or forming thick mats. The soft this is technically really a low bush. These slender stems had leaves last spring, lost the leaves in the summer shortly after flowering, the naked stems bore pods and passed the hot period as such.

plants. Then with the fall rains the mshes become green again.

- *Eriophyllum confertiflorum* is distinctly a low bush (woody stems $\frac{1}{2}$ to 1 ft. h.). So is *Castilleja foliolosa* in the Berkeley Hills

Fire Response

- *Arctostaphylos glandulosa* S. & G.

On the top of the ridge where the fires run repeatedly the growth is now low (1 to 3 ft. h. mostly). On the sharp hillside just above Pinehurst sta. is a small colony that has in late years escaped fire and the stems have grown tall - 10 to 13 ft. h. One woody basal platform is 6 ft. across with 12 trunks arising from it. These trunks are enlarging at the ground into bulbous-like structures on their own account, so to speak, the swelling being recent and

independent of the general woody platform. Another platform near it is 30 in. across with 6 trunks.

- *Photinia arbutifolia* Lindl. This is a cluster of stems, rather dense, with a platform, very woody, 2 ft. across and 8 in. thick.

- Winter condition of shrubs in the Berkeley Hills. The differences in winter buds of *Osmaronia cerasiiformis*, *Prunus encarginata* and *P. demissa* are marked. The latter has narrow pointed buds; the first has globose or subglobose buds. Details need confirming.

- Cmt. no. 10, 578. The leaves are some in a dense zone on the lower part of the stem and in age worn down, forming a reversed tuft, - that is when the plant is fruiting and drying up.

- Chaparral. Seedlings are found only or mostly in areas which have suffered a radical change in conditions: 1. Fire. 2. Landslips. 3. Scarifying, where the surface soil has been removed.

Mr. Carl Purdy came in yesterday and I introduced the old subject of germinating chaparral seeds. I was thinking of *Arctostaphylos* species but Purdy says in his experience *Dendromecon rigida* is as difficult. He suggests planting them and then burning over the top. He has not done this himself, because for seedling stock in his business he goes to "burns" - burns mostly 2 or 3 years old where he gets plenty of seedling without the trouble of growing them. *Canothus* species are difficult to germinate also.

- Cont. from bottom p. 105. The inadequacy of her data is illustrated by a sheet of *Gilia liniflora*, no locality! but a date (day, month, year! which she so seldom gives) and a note to the effect that the anthers, fully formed, contained no pollen; the corolla color blue and unusual. - Jan. 9, 1925.

- Dr. Kneche called again today. He talks fluently and ran on at a great rate about his plans for a private botanical laboratory. He has been trying to purchase the beautiful tract at the New Alvarado mines near San Jose but so far has failed. He means to live the life of a country gentleman with his horses and dogs and give himself to botany as a recreation. His plans for botanizing are somewhat unique: a high-power car; a trailer carrying a riding horse (he says he won't walk in the mountains); a camp

1 Mar. 1925

Slopes, colonies $\frac{1}{2}$ to 1 acre in extent, growing rather thickly, rather exclusively occupying an area as at least no other flowering competitor usually; so dominant as to color the area yellow.

No. 10,681. *Sanicula bipinnatifida* Dougl.

Open slopes

No. 10,682. *Ribes californicum* H. & A.

- *Ceanothus cuneatus* Nutt. Shrubs browsed down by cattle in the starvation years and taking on the aspect of close-bodied shrubs subject to feeding.

No. 10,682a *Athyrium pusillum* Greene

- Drove with H. Hein from Berkeley to ^{Contra Costa} Mocho southeast of Livermore. Followed up the cañon until reaching the divide at head. There is at the head much burned-chaparral. A good place for botanizing later.

Alameda Co

- *Teratology*. See "Green Butternut", *Ranunculus californicus* by Victor Duran from Lake Lagunitas, Mar. 1925.

- Ralph Plath, Vacaville, says: "On the Navarro River and towards Greenwood from Bonville there is a great deal of *Ceanothus thyrsiflorus*. Four years ago in Apr. I saw it in bloom. I have never before nor since seen the like of its wonderful flowering. These were panicles full 1 ft. long!" - Mar. 26, 1925.

- Working in the herbarium one continually runs into the eccentricities of Mrs. T. Brundage. She loved trouble, i.e. to start a riot. If things were too quiet she would move from one place to another and start something. The only person who ever got ahead of her was Miss Eastwood. Miss Eastwood is a lively, energetic and fluent speaker and she proved too much for Mrs. B. Mrs. B. left the Academy of Sciences and went to San Diego.

After that Mrs. B. took it out on this Eastward by writing her letters from a safe distance. - Mar. 31, 1925 ^(cont. p. 125)
 - Professor Satchell said this morning: "Mr. Brandegee (T.S.) is still in hospital. He is sinking fast and probably will never be about again. It is only a question of days or weeks. Of course he may surprise us, because he has wonderful vitality in holding on to life; but there are signs of the end. He has become irrational for one thing. When I went in he said: 'I suppose you want to talk to me about plants. Well those rhines are all around here [pointing with his hands] and if I had a map I could show you.' Well I wanted to talk finances to him because his hospital bills were over-due and I

found him unwilling to sign a check. He was very suspicious. Of course that was natural, since he has always been very suspicious - his temperament is suspicious. However he has faith in the nurse and when he was really faced with money matters he at once became rational [!!] and also showed his methodical habits by insisting on the item of the first check being entered in the stub and the balance carried to the stub of the second check before he would sign. He has always been quite methodical - being very unlike Mrs. Brandegee in that way."

- Apr. 2, 1925.

- T.S. Brandegee: Died today at 1 o'clock. - Tuesday, Apr. 7, 1925.

- C. L. Hill, U.S. Forest Service came in this morning with fossil woods from "Mohave Petrified Forest" nr. of Mohave Station in East

Chance Canon, the collection made by a prospector named Brewer. In the same canon the Cuddehoy people get their mineral for their Light House Cleanser. The four-toothed Mastodon is also found there. The wood is beautifully preserved, the cell-structure being most remarkably clear.

- A reporter from the Call, S. F. News-Japer, has been interviewing me this afternoon for an article in the Redwood, apropos of my lecture in behalf of the Save-the-Redwoods League, San Francisco, on Apr. 27. He is a sailor really, a guesting adventurer from Australia, a poet!, a citizen at times of the Solomon Islands which he loves. In the tropics it is not so easy to cure wounds, to say, as he told of one of his accidents. Use "iglodine", said he, a German product, generally on sale in

Australia. - Apr. 15, 1925. He says sharks are much more vicious at Sydney than in tropical waters; are more vile and more predatory. In tropics they are relatively harmless, at least can be scared away from the bathing places.

- Muir, John. Being early in the Sierra Nevada he collected a good many new things. But has never made spms. with attached data. Just small scraps mostly. Some of these served Gray, ^{and others} as the basis for new species, however, as *Raillandella muirii* (loc. unknown for Muir's spm) and *Senecio muirii* Greenm. - April 16, 1925. (cf. p. 131).

- H. V. Corville made a second visit to Berkeley today (May 11) on his trip into California, working on Ribes. He has been going about in the field, S. Cal., up the San Joaquin, Priest Valley, Marin, Napa, Solano Cos. He said that in going from

the coast of San Mateo Co., where *R. manzanii* grows, to the interior of the Santa Cruz Range, he was unable to differentiate that species *R. senilis* and *manzanii*, differentiate the extremes, yes, - but he found intermediates.

Correll is a tall rather large man, well built, now with gray hair and very pleasant ways. It struck me, however, that he had a personal view of species, that is that his concepts of the *Ribes* species as laid out in the "U. Am. flora" were the species to be accepted. That is I seemed to sense this very definitely from his remarks. That there were other evaluations possible, scientifically, did not seem to enter his mind. He was, however, too polite to express any of these things. Cont. p. 126.

- Cont. from p. 120. Miss E., in addition, has a vivacity, an ardent cheerfulness and sense of high spirits, which I should suppose would still sustain her even when she was boiling angry. I remember, I think, such an occasion, when "they" were talking of putting her out of the Academy and she expressed to me her defiance of "them", "mod" all the way through, but still quite gay about it.

- Came in to call, Professor Bungo Miyazawa, Miyazaki Agricultural College, Miyazaki, Japan. He said he would come again, with plants (native coal.) to determine. He came. I determined them. Pretty fair specimens many of them - mostly from S. F. Bay region. He speaks English poorly - but in an interesting way. Evidently he thinks out carefully

an English sentence - then gives it articulation. Then another long interval, after which another English sentence is born. - May. 7, 1925.

- Dr. A. D. Houghton has expressed to me his ability to germinate refractory native seeds by immersion in strong alkali (KOH), such as Matilija Poppy. - May 14.

- Cont. from Bottom p. 124. However it was evident indirectly. He looked curiously at every little thing nomenclatorial as he went through any sheets of papers of Ribs. He thought rozzi had a double ii in one case and pointed it out!

He has done some valuable field work. He got from Chosmit directions as to finding Ribs victoris at mouth of Lake Logunitas and found only

one bush with whitish flowers, the other bushes of the cluster being R. leptosoma. It may be that victoris is a mere color sport of leptosoma. Flowers should be collected.

Corille says he can't make much of Miss Eastwood's Ribs species nova.

Mt. Diablo. Apr. 26, 1925.

- No. 10, 683. ~~Asplenium~~ Stylomecon heterophylla
Flowers beautifully. Margins of brush, in open spots as under shelter of bushes, Black Hills.
- No. 10, 684. Baeria
Grassy slope in the Black Hills.
- No. 10, 685. Quercus sparsiflora
Grassy above hills by Green Valley.
- No. 10, 686. Laethemia glabrata Lindl. var. with 10, 688
- No. 10, 687. Poa scabrella (Thurb.) Benth. ex Vasey "
- No. 10, 688. Trifolium gracilentum T. & G.
Grassy slope in Black Hills.
- No. 10, 689. Trifolium ciliatum Nutt. Black Hills
- No. 10, 690. Eucrypta chrysanthemifolia " "
- No. 10, 691. Trifolium tridentatum Lindl. " "
- No. 10, 692. Lespedeza puberula " "
- No. 10, 693. Orobancha " "
- No. 10, 694. Orthocarpus pusillus Bth. " "
- No. 10, 695. Sanicula bipinnata H. Th. Black Hills

Left Berkeley a few minutes after 12 o'clock, with H. B. Dutton, the camp drainage in the machine. *Fragaria parvifolia* is well established along roadways near Hayward. *Helianthus annuus* is abundant along lowlands in the valley of the San Joaquin from Manteca to Tullock. At Tullock we turn east towards Snelling. After leaving the valley floor we come upon the rolling red-gravelly plain which borders the whole east side of the Great Valley. It has a characteristic vegetation: *Brodiaea coronaria* makes a great show in primitive (undisturbed) lands; *Grindelia camporum*; *Eremocarpus setigerus*; *Navarretia leucocephala* (no. 10,696); *Lythrum*.

we drop down from this plain of undulating character, into the river bottom of the Merced. The river bench makes a fertile and exceedingly good-looking valley with its groves of *Quercus lobata* with *Populus fremontii* along the streams; also *Alnus rhombifolia*; *Salix nigra*.

We reach Snelling, a very small village on the river bench, purchase a couple of steaks from the meat shop and go on to Merced Falls, a mill town, with extensive lumber yards. Beyond the town, up the river, a few hundred yards, we cross the Merced on a bridge and go on through the lower foothills, dry and rocky. Camp in a side-lane for the night at 7 o'clock. Having reached Snelling at 6 o'clock. Next morning go on to "Hornitas", a little town, go down in the bench of Hornitas Creek.

and camp to make breakfast. At Hornitos: *Silybum marianum*, *Nicot. glauca*, *Populus fremontii*.

It is a dead little village, the Prichley Pear Cactus being a symbol of its ancient settlement, or on occasional mulberry tree or *Robinia pseudacacia* or Tamarisk! From this place in early days Capt. Love organized the posse that ran down Joaquin Murietta. The first settlement was Quartzburg, a short distance north on the Merced River. Then developed trouble with the Mexicans and the Mexicans were "run out" of town and settled at Hornitos where was a Mexican who had an oven of earth where bread was brought to be baked: Hornitos! This story we had from E. B. Caragnaro, who was born in Hornitos. He is the store-keeper and his father had a store here before him, in 1852. Hornitos is one long

street with solid types of stone and brick buildings with iron slanters on either hand for $\frac{1}{2}$ of a mile I should say - all shut up and deserted but one or two. About in the center is a little plaza, a tiny plaza, but still a plaza with buildings facing on the four sides of it, the east side being also the main street.

E. B. Caragnaro claimed very definitely that the Indians in early days fired the chaparral, not each year, but whenever necessary "to clean it up", that is to make feed for the deer or to travel through the country. I talked with him some time about this and he hung to his story.

- Cont. from p. 123. His first visit was not recorded in my journal, but occurred about two weeks previously I think, maybe a month.

- No. 10,696. *Navarretia leucocephala* Bth.
Clay depressions, Barfield School, near
edge of foothills, in rolling plains, east
of Turlock.
- No. 10,697. *Salix brinsiana* Benth.
(Merced Co.) River bench, Merced River, near Hopland,
2 1/2 mi. sw. of Snelling.
- No. 10,698. *Filago*
Open hills near Horinitas, red clay gravelly.
- No. 10,699. *Ardisia cernua*
with 10,698.
- No. 10,700. *Plagiobothrys canescens* Bth.
on the creek bench at Horinitas,
by the bridge where we camped.
- No. 10,701. *Navarretia intertexta* Hook.
Ruth Pierce Mine, above Horinitas.
- No. 10,702. *Calochortus luteus* Dougl.
This no. + to 10,714 = Ruth Pierce Mine.
- No. 10,703. *Micropus californicus* (T.) W.
- No. 10,704. *Navarretia pubescens*
(Benth.) H. & A.
- No. 10,705. *Hypochaeris glabra*

- No. 10,706. *Gratiola ebracteata* Bth.
Muddy pool in open hills.
- No. 10,707. *Linnanthus filipes* Greene.
Cont. p. 142.
- No. 10,708. *Navarretia intertexta*
Hook.
- No. 10,709. *Navarretia intertexta* Hook.
albino of 10,708.
- No. 10,710. *Eschscholtzia*
- Clarkii purpurea* ssp.
No. 10,711. ~~*Godolium*~~ *quadrivulnera*
Petals pink-lavender or near
Sidalcea color, each with a
purple spot, almost always notched
or lacerate at apex, narrow relative
to 10,712. Stigmas only shortly 4-lobed,
often appearing as if capitate.
- No. 10,712. *Clarkii purpurea* G. Don.
Petals much the same color

as 10,711, but broader, fan-shaped,
truncate. Buds seemed to be different.
Stigmas forming a deep or dark
purple cross! very striking. Stigmas
4, really linear. Petals not spotted.

It is not satisfactory to label 10,713 the same species.
See below.

No. 10,713. *Godetia purpurea* f. Don.

This has a very short style
as if capitate. Its ovary is obovoid,
and very broadly winged.

Petals much as in 10,712. Ribbed, almost

These 3 species of *godetia* grew
in an open field in the rolling
wooded hills, all gathered from
a space of an acre. They tended
to grow in colonies but apparently
intmixed, especially 10,711 and
10,712. The capsules of 10,713 are
remarkably different from those of
10,712, these latter being larger, 4-sided,
resembling the usual form of *G.*
quadrimembra capsules, that is the form
which has pubescent capsules.

No. 10,714. *Trifolium tridentatum* Lindl. var.
open field with 10,712. *mariposa* Jepson.

No. 10,715. *Orthocarpus densiflorus*
Bth. openly wooded grassy
slopes.

No. 10,716. *Brodiaea*

Remarkable for the great size of
its perianth but not differing
from *B. coronaria* other wise.

No. 10,717. *Chlorogalum pomeridianum*
(Dr.) Kunth. In rocks. Mt. Bullion

No. 10,718. *Delphinium Hauseri* Greene,
Open grass glade, below

Mt. Bullion village
= *Tricelata*

No. 10,719. *Brodiaea ixiodora*
with 10,718.

No. 10,720. *Trifolium variegatum* Nutt.
var. $\uparrow$ Below Mt. Bullion village.
melananthum Greene.

36 Mt. Bullion, in a little "burn" south of the
village about $1\frac{1}{4}$ miles. May 24, '25
2300 ft.
Mariposa Co.
No. 10,721. *Eriogonum inerme* var. *inerme*
Mt. Bullion.

No. 10,722. *Oenothera micrantha*
Hornum.

No. 10,723 *Gnaphalium palustre*

No. 10,724. *Psilocarphus tenellus*
var. *tenellus* Nutt.
Nutt.

No. 10,725. *Dichelostemma volubile* (Kell.) Heller
Brodiaea volubilis
Open bush

No. 10,726. *Scutellaria angustifolia*
siphocampyloides
Pursh. Open bush.

No. 10,727. *Scrophularia californica*
Cham.

No. 10,728. *Briandusalia stricta*
(A. Gray) Greene.

No. 10,729. *Pogogyne serpylloides*
Bth.

No. 10,730. *Madia exigua* (Smith) Gray
~~*Harpa carpus exigua*~~

Guadalupe Mts., Mariposa Co.
May 24, 1925, 2300 ft.

137

No. 10,731. Grassy open glade in
wooded country (oaks, digger pine).
Trifolium microcephalum Ph.

No. 10,732. *Trifolium variegatum* Nutt.
var. *melananthum* Greene.
with 10,731.

No. 10,733. *Brija minor* L.
with 10,731.

No. 10,734. *Trifolium ciliatum* Nutt.
- *T. ciliolatum* Benth.
with 10,731.

No. 10,735. *Orthocarpus erianthus*
Bth. with 10,731.

No. 10,736. *Delphinium variegatum*
with 10,731.

No. 10,737. *Bromus mollis* L.

This grass grew with 10,731.

No. 10,738. *Aira caryophyllaea* L.
(Det. Beecher Crampton, March 1912)
This grass grew with 10,731.

May 24, 1925, 2300 ft.

Openly wooded slope, oak, ^{*}pine.No. 10,739. *Sanicula bipinnatifida* Dougl.No. 10,740. ^{Clarkii}
~~*Gelettia*~~ *dudleyana* Abrams.No. 10,741. *Collinsia bicolor* Bth.

Merced Co.

Delhi, San Joaquin Valley, May 24.

No. 10,742. *Oenothera dentata* Cov. var.
campestris Jepson.
Sandy plainNo. 10,743. *Phacelia ramosissima*
Dougl. Sandy plain.No. 10,744. *Oenothera trichocalyx* Nutt.
var. *cognata* Jeps.
Root annual. Plantsfreely branching and often bushy,
1/2 to 2 ft. high. Cor. white.Open at 6 o'clock evening as we
passed. = *O. trichocalyx* Nutt var.
cognata Jepson.* *Quercus douglasii*, *Pinus sabiniana*.

May 24, 1925

Holes on trip to Hornitos.

- *Trogon parrifolius* Colmes
at Haywards.- *Helianthus annuus*. Modest, Turlock,
Mariposa. Not yet in fl.- *Brassica adpressa*. Abundant
between Turlock and Barfield.

- school, on the long "east road".

- Merced River bottom at Hopeton.

Senecio rhombifolia.*Quercus lobata*.*Salix nigra*.*Heterotheca grandiflora*.*Salix* no. 10,697.

- Hornitos.

Antennaria cotula- Mt. Bullion *Ranunculus muricatus**Santania mehlensis*.*Calochortus venustus*." *luteus*.

Colonies of Annuals.

- *Linanthus filipes** grew in a very marked colony 12 ft. diam. circle. All other species were excluded, though the dense vegetation came closely up to the boundary of the colony. The excluded species were: *Hemizonia* sp. not in flower; *Forss. folia*; *Briza* sp.; *Nassarretia intertexta*; no. 10,708; *Orodica carniaria*; etc. This colony is to be explained on the fact that it is a gopher working and this cultivation gave this species a favorable condition which enabled it to compete successfully against other species. *10,707. See above.

The same phenomenon, definite but less striking, was shown in the case of *Gleditsia* no. 10,712, which grew on gopher-worked soil and formed

marked colonies.

These colonies were in the tops of little hills, not in swales.

These grassy hills are now very pleasant in their flowering time. We hear the lark's rippling note, and as I observantly walk the slope, a female lark running along the ground rises in the air and is gone and I know she has a nest. I stop and look. From just one point one can see the nest under the grass, so neatly is it hidden. It has 4 eggs.

- Botanical Exploration. - Cf. Bibliog. Am. Nat. Hist, vol. 1. 1769-1865 (Premier Pub. Co., Brooklyn. 244 p.) Circa 1924.

- Brandegee, T. S., short notice of his life by Sitchell in Sci. 61:464.

- I went down to Stanford on the evening of June 10 to attend the dinner in honor of Professor Campbell. There was an excellent turnout of Campbell's former students. Perce presided as toastmaster. First to speak was Jordan who spoke well in spite of the weight of his years. He called 3 men first to Stanford: Gilbert; Elliot; Campbell; and went on to tell of the early history of Stanford and Campbell's achievements. President Wilbur spoke and expressed wittily his successors steps in being educated as to what a botanist really is. He said that he supposed Campbell was all right, at any rate Jordan thinks well of him - but then he noticed these scientists always speaking well of each other! Copeland spoke for the alumni but not very clearly or cogently. Finally Campbell spoke.

June 10, 1925.

Campbell is not in the least emotional but he spoke, for him, feelingly, of the tribute paid him in founding the Campbell fund.

A very great many persons came up to me before and after the dinner - some who knew me, others who introduced themselves. I felt as if I were almost holding a lever.

- Dary, Dr. Joseph Burt. - Appointed lecturer in tropical forest botany in Imperial Forestry Institute, Oxford (Sci. 61: 414). Dary was here in Berkeley last September and called at the Herbarium twice. Mrs. Frederick, who works at the Herbarium, said she felt he must be some one rather distinguished and not an ordinary visitor, because of the manner in which Satchell showed him around. He did not come to call upon me ^{see p. 153 at bottom.} - though his visit may

Berkeley, June, 1925.

have coincided with the period I was laid up. Satchell never liked him and has prevented Davy getting a position here. Within a year and a half Davy applied once again to Satchell but the latter told ^{me} that he did not at all approve of Davy's kind of work. - [Nov. 10, 1925.]

- Marcus E. Jones. "Mr. Jones was in this case, as usually, very positive in his statement, even if he was merely guessing" - P. A. Rydberg in *Tarrega*, 25:97. While Rydberg is very hostile to Jones this is not an unfair statement of Jones' method.

- Botanical exploration: cf. also: First One Hundred Years Am. Geology by Jos. P. Merrill. Yale Press. 1924. Contains biographical sketches.

- Nuttall, Thos., Some Facts in Life of (Sci. 62:390)

Vacaville, June 7, 1925.

Solms 145

- I went to Vacaville on June 7. Collected the two *Stenothraustes* in good leafing which leafing seldom shows in spurs. See below.

- On June 20 I was there in Vaca Valley again. Judge Platt remarked the great abundance of *Aythya colub* this year. I also noticed its abundance on my trip to Stanford recently. When a lad, the Merganser was a dominant bird. It covered the country everywhere. - pastures, vacant lands and fields generally. For now 15 years it has been rare.

No. 10, 745. *Centaurea solstitialis* L.

Little Oak Ranch, Vaca Valley.

No. 10, 746. *Centaurea calcitropa*

Little Oak Ranch, Vaca Valley.

No. 10, 746 a. *Erigeron* ^{*Conyza bonariensis* (L.)} _{Gray.}
Berkeley streets (Haste near College).

Berkeley

- One of my correspondents wants to take up *Astragalus* and refers to Jones' occupancy of the field. I reply: "I have not seen Jones' paper but in the case of Jones one hardly needs to see it. Jones runs across & uncovers some good things and develops some good ideas - but in a helter-skelter way. He lacks utterly the power to organize results and give a finished form to them. He is quite lacking in the field of letters, notwithstanding the A.M. which he sedulously prints after his name." - July 16, 1925

- Frank W. Pearson remarked today about Jones' paper: "I simply cannot use it. The keys do not work. Maybe anyone who is specializing in *Astragalus* could understand it, but I have no time for that." - Aug. 1925.

Aug. 1925.

- C. R. Ball, U. S. Bureau of Plant Industry is here in connection with his official duties. He says: "Schneider was caught by the war while traveling in the U.S. He was held here as an enemy alien but had to earn his living. It was not easy for him to find something to do but Sargent gave him a job at the Arnold Arboretum at a very low salary and demanded that he finish a certain amount of *Salix* in a certain time or he would not pay him. This accounts partly for the unseasoned character of his work. He ran into new things or new matter and this new matter had to go to the end instead of in its proper place."

"We find in breeding wheat we cannot determine rust resistance in one season - though exposed to infection

the infection may not take an account of the failure of moisture, temperature, etc. to combine in the right way for the disease. It may take 3 seasons to determine immunity.

"The Farm Hands Club in Washington meets every Tuesday at luncheon for 1½ hrs. The meetings are informal. About 24 to 40 men gather."

I remarked to Ball that a man could not lead a double life and be a good scientist, that his dishonesty in every-day life would affect his vision as a scientist. Ball replied:

"A remarkable case of that kind, I come under my notice."

I'm in support of that view. He deliberately at a certain time of life departed from the straight and narrow path. At almost exactly the same time it affected his scientific powers as to the truth.

I did not learn the explanation until afterward; but the two events almost exactly synchronized. One cannot be untruthful in every day life and be unswayed by it in his work as a scientist. - Aug. 4, 1925.

- Dr. J. W. Hardberger, Professor of Botany, University of Pennsylvania, visited me today, Aug. 11. He is touring the western U.S. He said: "There hangs a picture, in the Academy of Natural Sciences of Philadelphia, of the Hooker-Gray-Hayden party. The various individuals in the picture are named excepting one, this being labeled a trapper. I felt sure, from seeing Lemmon on my visit to California in 1897, that this figure in the picture called a trapper was Lemmon. When I was at Kew in [? 1910] I was told that no one could see."

Sir Joseph Hooker - at least unless they had business with him. So I invented the excuse of asking information about this picture - as to the identity of the trapper. So the two authorities replied: "Very well; Sir Joseph will ^{be} here on such a day and we will arrange to have you meet him." I told them that I would not take up much of his time; that even five minutes would serve. However, I wanted to meet him, if only for a few minutes, in order to tell my students about him."

"He has been made Director at Kew because of his administrative abilities and not because of his botanical achievements. The Directors at Kew have been distinguished as botanists: the Hookers, Dyar, Prain. Furthermore, there is not a single ^{man} at Kew now who has an international reputation as a botanist."

Henshberger goes from here to Giant Forest. I took him out this afternoon to see the *Arctostaphylos* - *Ceanothus* - *Castanopsis* association in the Oakland Hills and to dinner at the Club afterwards; then to Parish's, but he ^{Parish} was not at home. Henshberger is a stout German with typical round German face, mustache, bald head. He has the typical German face - mild and pleasant, not fierce like Bismarck.

- *Mentha pulegium* "Has increased wonderfully in n. Sonoma in last two years. Saw little of it two years ago. Now spread over everything. Along coast. - F. W. Parish, Aug. 19, 1925.

- Carl Epling just in from blister work in Ida. Plans to write a flora of Idaho. Says Correll was given \$1000⁰⁰ for expense to straighten out taxonomically the *Ribes* sheets in Wash. for the blister-mut work. Instead he

Berkeley, Sept. 1925

went into Cal. & S. Cal. to work on obscure species which have no relation to the government work in the north. Wykoff was "hot" about it. ^(spring) Epling says he is building a herbarium at Southern Branch. It is his own. He has 5000 spms. Says he thinks no one in such a position should have a private herbarium; the time belongs to the University, etc. Says he wants to sell the herbarium to the University.

[!!!]. - Sept. 6, 1923.

- Herbaria, Private. Cf. Tykos and original citations, vol. 2, p. 182.

Howall Mt., Sept. 27, 1925.

No. 10,747. *Prunus subcordata*. It is frequent in places on the mt. A great many small plants which look like seedlings. On investigation they prove not to be seedlings at all but shoots from buds on the roots.

No. 10,748. *Scabiosa*

This has persisted a long time in old clearing at a former settlement.

Howall Mt., Sept. 27, 1925. 153

- *Arctostaphylos stanfordiana*. Herbage a bright green! *A. manzanita* - its herbage or leafage a little grayish! In *A. stanfordiana* leaves erect and very vertical; in *A. manzanita* less vertical & decidedly less erect. Spikes (in bud) very erect in *A. stan.*, not straight but straightish or only a little curved, but in any event, erect-ascending! In *A. manzanita* the racemes (in bud now) drooping!

This is an interesting matter - the putting out of racemes of fls. in bud at the end of the dry season!

There is much *manzanita* here at La Brusca, Howall Mt. Bado says the trunks are used for mauls. *Psoralea physodes* leafage used for tea. *Symphoricarpos albus* berries not eaten by birds.

- Cont. from p. 143 at bottom. An extremely incomplete statement. See "Men and Manners" (private journal), vol. 13, p. 378.

Howell Mt., Sept. 27, 1925.

Howell Mt. Association

- The rolling plateau top and slopes have the following species: *Pinus ponderosa*, *Pseudotsuga taxifolia*, *Lithocarpus densiflora* (a lot of it mixed in), *Quercus californica*, *Q. chrysolepis*, *Acer macrophyllum*, *Ceanothus foliosus*, *Dequonia semperivirens* (in deep cañons, east slope), *Cornus nuttallii* (a lot of it!!), *Arctostaphylos* ^(abundant) ~~marginalis~~ ^{stamfordiana}, *cornescens* (scars)

The above list made at La Brea, Bader's place on east slope.

No. 10,749. *Navarretia squarrosa*
H.T.A. In a formerly moist but now dry flat on top of mt.

- Mr. H. P. Mason, now instructor in my division of the Dept. of Bot., is working up the collection of plants which he gathered on the Cal. Acad. Sci. expedition to the Mexican coast this last spring. Miss Eastwood, curator of the Academy Herbarium, has been very cooperative and has allowed him to bring the plants to Berkeley for work. He says that she was very unfriendly to Johnston and would not allow him any privileges - the plants could not be taken away. However, Mr. Mason said yesterday: "I could not stand it to live with Miss Eastwood. She gets on my nerves. I can't stand her!" - Sept. 28, 1925.

- Shrubs in the hills of Berkeley:
Simulium:

Ribes sanguineum var. *glutinosum*.
Leaf, 3 main lobes subequal; petioles dilated at base, the dilatation glandular-denticulate; scales of winter

buds with vestiges of bristles at apex; hairs simple. Students often fail to differentiate Physocarpus capitatus: Leaf, 3 main lobes much larger than the two central lobes of the lateral; petiole base not expanded; scales of winter buds hairy at apex; hairs stiff.

There is also some confusion between *Dirca occidentalis* (bark dark or black; axillary winter buds after leaf fall densely white hairy) and *Osmaronia cerasiformis* (bark light yellowish color; leaves glabrous, pale or yellowish, entire).

Paeonia densa (the larger leaves mostly 2 in. long, broadest above middle), while *P. emarginata* has the larger leaves mostly 1 to 1½ in. long, broadest at middle.

Ribes divaricatum - whitish bark; one spine, large leaf.
 " *menziesii* - brown bark, 3 spines, small leaf.

No. 10,750. *Modiola caroliniana* G. Don. On the old football field, near Bancroft Way and College ave., Berkeley. Nov. 4, 1925.

- Vladimir Ulehla, D., Director of the Institute of Plant Physiology, Masaryk Univ., 63 Kauniceva, Brno, Czecho-Slovakia, was here in Berkeley today. He showed a motion picture of a *Batalia* species to illustrate its twinning motion.

- Frank W. Pearson, Pasadena, Cal. has been here in Berkeley since August. He is the man who makes such admirable herb. specimens that they are the admiration of everyone who comes around my laboratory. I called on him and his sister, Mrs. Mabel Pearson, teacher of science in the University High School, at their apartment on Euclid. Mrs. Pearson referred to Miss Ellen Scripps, saying that she furnished the money for buying Jones' herbarium and Jones, for Jones would not sell, unless he could

Come with the barbarian. He is vulgarly rude to women. Mr. Peirson says "that his flora of the Great Basin is (Jones') being made ready for publication, but that Jones continually runs away on collecting expeditions and that "he gets the stuff." He loads up an old Ford until it looks like a moving van filled with junk and off he goes.
- Nov. 14, 1925.

- Carl Epling. I agreed to exchange herb. spms. of Cal. for Epling's last summer's collection in Ida. The box of Idaho spms. arrived a few days ago. There were the poorest scrappiest lot of spms. I ever saw I think. They were worse than the poorly prepared specimens offered in class work by some indifferent students.

They were often without flowers or fruits. I sent the box back to him! at once. I am sure I did right. See my letter of All this is interesting in connection with the "herbarium" statement on p. 152, supra. - Nov. 25, 1925

- Californian Collectors. A good deal of matter can be picked up from Goodale's List of the writings of Asa Gray, especially from the obituary notices. Cf. A. Wood, John Torrey, etc.

- Boissdual, J.-A., is the author of *Flora Française*. Who is the Boissdual, author of "*Lepidoptères de la Californie*", Brussels, 1869.

- Fire Reaction. Instance of numerous fires reported. Lightning storm July 5 = 125 fires. Terrific storm July 12 = 153 fires in one night. - I. V. Anderson, District One, U.S. Forest Service (Cal. Dist. Newsletter, Sept. 3, 1926, p. 6.).

- "Well that is barbarism [the old-time cutting away of the forests in Palestine]; but then we ^{in Cal.} are doing the same thing and doing it rapidly. That is

barbarism too. A sort of conscienceless counselors barbarism." - Dr. C. B. Bradley, on visiting my Laboratory Sept. 7, 1926 and hearing my account of the denudation of the Near East.

- Lemmon, J. G. - In order to prepare a biographical sketch I have been going through his "literary" and "scientific" belongings at his old home on Telegraph Av. Everything is now crowded into three small rooms and is in the utmost disorder. I find more instances of his contributions to daily and weekly newsletters than are on my list of his writings. The Lemmons were much given to publicity. Mr. Lemmon was usually a bit rhetorical - but he lost nothing by that amongst the people generally. - Sept. 10, 1926.

— Collecting and Field Recording in California. I hope to set a new standard for making records of field work and field collecting in California, for young botanists. The title will be, I think, somewhat like this:

Pons *Cybelorum Californicum*.
A Discourse on the Collection and Preparation of Plant Specimens in California and the making of Field Records. I mean real records.

— Called on Mr. and Mrs. S. B. Parish. They ^{or rather Mrs. P.} said: "Orcutt (C.R.) came to our place at San Bernardino. Mr. Parish had undertaken to whitewash the kitchen — and himself. So I had moved everything out of the kitchen in preparation for this Johnstown flood of white wash. There came to the door

a young man. He was in company clothes and it proved to be Orcutt. I invited him in and prepared supper for him. He never knew how inopportune was his visit:

Dr. C. C. Parry was his friend. Dr. Parry, wishing to drive into Lower California to Ensenada hired Orcutt's team. The team probably belonged to Orcutt's father but in any event Orcutt went along and thus was started his interest in plants. Dr. Parry stuck up for Orcutt during the Marcus Jones incident, for Orcutt was but a boy.

During his visit to us he told of a lady seeking him out to get the name of a plant. He could not supply it offhand, which occasioned him inconvenience. He stuttered a

bit over his "r's" and said: "Such is the result of a vegetation!" Poor Orcutt. We have wondered how he lived. He married and has a daughter and perhaps a son.

At the present time he is in good fortune. Boyce Thompson is paying him one hundred dollars a month to collect cacti for the Arizona garden.

Orcutt was always extremely fertile in schemes. He launched a scheme to found a hotel for retired botanists. If you wanted to retire you paid in so much for stock in this hotel and then you came and lived in the hotel until your stock was used up. No one, apparently, ever applied."

Orcutt was and is simple and harmless; visionary

and a strange fish, but not malicious or vindictive like Maxm Jones.
- Sept. 11, 1926.

- Collecting Plant Specimens. - Dr. W. F. Chaney is back from The Third Mongolia Expedition. He found paper scarce in China, as I found it scarce in Palestine. He used rice paper for collecting but it is so thin that he ruefully wished for parcels of the newspaper which are so abundant in the U. S. - Sept. 22, 1926.

- L. E. Smith. Collected chiefly in N. Cal. Presented 469 spms. to Klamath Natl. For. "Was a traveling salesman with botany as a hobby." See Cal. Dist. Newsletter, vol. 7, no. 12, p. 3. Mar. 26, 1926.

- *Salvia apiana*. Each stand of *Prosopis* averages 100 lbs. white sage honey in a season.
- Cal. Dist. News Letter, vol. 7, no. 7 (Feb. 19, '26)

- Fairy Circles. See letter of S. L. Gillan, Dec. 20, 1923.
- Lightning. The mystery of lightning, which has never yet, even on the most reduced scale, been actually produced by any human contrivance or apparatus. - Alex. Meffis, Man and Weather, Oxford Univ. Press.
- Fire and the Forests. cf. Cal. Dist. News Letter, vol. 7, no. 28. "E. F. S", evidently of the Eldorado Forest, quotes an Osage Indian as to fire habits.
- Rhus diversiloba F. & G. dermatitis. Kennedy = 5% solution ferric chloride in half and half mixture alcohol and water. Glycerin and water to bath hands = preventives. acc. J. B. McKim.
- J. F. Couch, U. S. D. A says that painting patches of poisoned skin with a solution of potassium permanganate gives immediate relief - Cal. Dist. News Letter, vol. 7, no. 30 (July 30, '26)

- "The big thing in the 'transplant method' is the handling of material, the familiarity with that is the result of handling living plants so many times. Dr. Hall has not in all the years that he has been at it gotten anything convincing" - H. L. Mason, Oct. 20, 1926, on giving up the "transplant" work on *Androsace* and taking up *Polemoniaceae* instead for his doctor's degree thesis.
- Calaveras Big Tree Grove and 12,000 acres timber sold by Robert P. Whiteside of Duluth to Pickering Lumber Co., \$2,000,000?
- Dist News Letter, Oct. 8, 1926
- Forest Fires. Effects flow of honey in flowers. cf. Dist News Letter, Oct. 8, 1926.

— John Mel, Univ. Cal., 1897, was one of five Young fellows who kept house for themselves at 1911? Shattuck ave. in a little cottage while attending college.

Julius Bartlett, son of former Governor Bartlett (of Cal.), was another. There was also J.B. Davy and Ivan Dickstrom. J.B. Davy had come to California for his health; he was warned against California rattlesnakes before leaving England, that he might step on them any moment, and so he had made a great pair of boots, the soles (of heavy cowhide) an inch thick, and coming up nearly to the knees. I remember them well.

Old Shippo, the solitary clerk in the Comptroller's office, used to make sport of them in a friendly way, for the boots were often in evidence around South Hall.

I met John Mel today in Berkeley,
— Dec. 19, 1926.

— Hartweg, Theo. Botanical Collector in California. Perhaps, says my friend Alwin Berger, a photograph of him could be had from Prof. Dr. L.

Klein, Karlsruhe, Baden, Germany.

— Geo. Barclay of the "Sulphur" of Salix Barclayi Lind. Look up Andersson's description. Rydberg, Fl. Rocky Mts. spells it S. Barclayi. Barclay was non persona grata on board the Sulphur. Hinds and Benthorn barely mention him and only as Mr. Barclay.

— Edw. Palmer. Coll. at Petaluma, 27 June, 1892. (cf. Hemizonia wrightii Gray, Palmer's 2679.).

— Botanical Exploration of Cal. of LePeyrouse. "Voyage around the world performed in the years 1785-1788 by M. de la Peyrouse. To which are added a voyage from Manila to California by Don Antonio Maura and abstract

- of the voyage and discoveries of the late Capt. G. Vancouver. pp. 333. Boston, 1801. [In U.C. Library]
- Bidwell, Annie. was prob. the first collector of *Lagophylla ramosissima* Gray; at any rate her plant is probably the type.
- Fire. Part of the territory within the forest is noted for its oil shales. In one place a brush fire of 1923 ignited escaping gas and this gas fire is still burning unless the heavy rain of Nov. 24 has extinguished it. - Santa Barbara Forest (Cal. Dist. News Letter, vol. 8, no. 1 - Jan. 7, 1927.)
- Common Names. In my books (printed) are certain symbols, so to speak, originating with myself, as for example in my *Silva* of California I invented, without being specially conscious of it, any more than of any other original phrase, the term *Henley*

- Oak to designate the great *Quercus lobata* individual in Round Valley, Mendocino Co.
- In compiling his "Let's Know Some Trees", C. H. Shinn uses *Henley Oak*. He does not give credit for this, nor for any other facts used, though he does say my *Trees of California* is "out-of-print", which it never was. He also uses the names to which I gave special currency: Blue Oak, Valley Oak, ^{Interim} Live Oak, Brewer Oak, Huckleberry Oak.
- J. S. Newberry. "Founder of the Department of Geology at Columbia" - Sci. about 1926, in a biographic sketch of Professor Kemp.
- Bridges. Thas. One of the finest things named for Bridges is *Pan-stemon Bridgesii* Gray. He probably got it in the Yosemite region.
- Coulter, John. *Adventures on the Western Coast of South America and the interior of California.*

2 vols. A copy is offered by Dawson, Los Angeles in 1927 at \$25⁰⁰. The cat. note says: "Seven chapters on S.F., the Missions, and adventures in the interior, in 1836." Some one, — was it Bancroft of the 39 vols. of history? — denounces this Coulter as a fraud and his narrative (as to Cal.?) as apocryphal or largely. This I recall vividly — as to the fact of denunciation — from my reading long ago.

— Brewer, W.H. Dr. C.B. Bradley prepared a paper for the Cal. Bot. Soc. at its annual meeting Feb. 12, 1927 in Berkeley. He was not present but the paper was received. In it he describes an incident at the Gray Herbarium, of which he was a witness — when Asa Gray put Brewer to discomfiture.

See the neg. in the Madrono letter file.
^{Typed copy of the}
 Said Dr. Bradley: "I never ^{before} in my life saw any one get such a slap. Brewer was a rough fellow and he deserved what he got."

After Dr. Bradley's experience with Asa Gray (he ^{Bradley} was then a young fellow, on his way back to Siam), he prepared to go to New York. Dr. John Torrey had been one of the preceptors of Bradley's father, then in ^{Medical college} Siam. So Gray, who had been Torrey's pupil, gave young Bradley a letter to Dr. Torrey, saying: "Instead of the father, I send you the son."

Professor Bradley was, later, an instructor (later professor) in the English Dept., Univ. of California. Asa Gray came to Berkeley and was the guest of honor at a luncheon given by President W.J. Reid. Some 5 or 6 of the professors were invited and Bradley, much younger,

was included. Professor Bredley could not remember the year of this, but he says Professor A. J. Cook of the English Dept was present. Reid left the Presidency about 1884; Cook did not come until (?) 1881. See p. 180.

The Parishers tell me Asa Gray was a little man.

- The atmosphere of the days when David Douglas, Scouler and others botanized in the Northwest is depicted in Beckles Willbon's work: The Great Company. Being a History of the Honorable Company of Merchants-Adventurers trading into Hudson Bay. Maps and Ills. N. Y. 1906. Cf. also Agnes Lund, Pathfinders of the West. The Thrilling Story of the Men who discovered the Great Northwest. Ill. by Remington and others. N. Y. 1904.
- C. P. Nash. Came up and spoke to me when I was at dinner

at the Berkeley Inn, March 19, 1927. He was one time Assistant in Botany in the University, having been brought here by Hitchell in 1895. He had a falling out with Hitchell and left about (?) 1900. He was a nurseryman at Mountain View for many years. He is now in some sort of educational work for the U. S. Government (? Veterans of the War) and lives at Fresno. He published one or two botanical papers in those early days (? Cal. Acad. Sci.) on algae. He married Edith Byxbee, a very keen alert bright-minded girl whom we knew about the Dept. Bot. in early days. She collected on the Mendocino coast and her specimens have been or will be quoted in the Flora of California.

- 16 Mar. 1927.

- Erythraea. An occasional help in the editing was M. A. Howe. Professor Greene told me a year and a half before leaving the University of California that he was leaving; that he would be leaving and going to Washington. He told me this in confidence. A year and a half later, about, Howe learned the news and brought it to me. I then told him that the matter had been known to me for $1\frac{1}{2}$ years but there had been a request I should not speak of it. As the face of honest faithful Howe shone pleasantly, he said admiringly, "well, you can keep a secret!" I had not thought about it. It was instinctive in me to be honorable in the matter. It never occurred to me to say to Howe that Greene was leaving, that it was a great secret, and I had been told not to tell it. That

would have been mean-spirited. - In going over J. G. Leammor's ^{cont. p. 182} things I ran across the compound microscope presented to him by his admirers at Santa Barbara on the occasion of his first visit there. The matter was the work of Miss Sara Plummer, as a leading spirit in it, probably. The list of contributors follows:

Col. W. W. Hollister

Mrs. Ellwood Cooper

Dr. C. C. Parry.

Mrs. Z. R. Parry.

O. L. Abbott.

Mayor M. Cook

Mrs. S. E. Prescott

Miss Fish

Professor Alphonse Bel.

Miss S. L. Anderson

Mr. Caulder

Mrs. Caulder - over -

cont.:

Wm. M. Eddy.

Col. H. G. Otis

Miss Wood.

Miss Sara A. Plummer.

— Copied from the inside

lid of the microscope case, Feb.
1927. Colonel Hollister is men-
tioned in Sara Bixby-Smith, Ado²
Days. See no. index in my own
copy.

— Cont. from p. 175. re. Asa Gray in
Berkeley. The white mansion of
President Reid stands on the corner
of Ellsworth St. and Allaton Way.
The corner is the SE. corner of
the junction where Ellsworth
joins Allaton Way and ends. It
is opposite the present Methodist
Church. Professor Greene lived
for a time in this house after
the departure of Reid.

Collecting Plants. All sheets or
sets of sheets made of one number,
that is marked as of one
collection number, should be
clearly one thing. There is
something unmistakable ^{ka} about
a set of plants that come
from one spot and are
unmistakably alike. Even when
dried the lot exhibits a charac-
ter, a hue, an aspect, something
clear to the eye but illusive in
words that says one thing,
and enables me to spot the
lot as different from another
lot of the same species. The
material is of one age, it
is dried under like conditions,
it has a brightness or lack
of brightness common to the
specimens of the lot. This
quality enables me to keep,

or rather helps in keeping things straight in an herbarium. One can infallibly restore a specimen to its sheet if dropped out.

Something of this matter of the atmosphere of specimens is referred to by P. S. Standley in Sci: 65: 132. - Feb. 1927.

- *Rhus diversiloba*. Derrick N. Lehman is an able Prof. of Mathematics but in other fields, say botany, he may be a lack: for he says the North Wind disperses the poison of Poison Oak!

- Cont. from top of p. 179. Greene had reasons for not giving out the matter at the beginning. What those reasons may have been I did not know nor do

I now know. It never occurred to me to violate his confidence. I was told to keep it and that was all there was to it. I was under no temptation. But Horvitz's remarks, and more especially his manner of saying it, was a real compliment. - Feb. 1927.

- "David Douglas was only 25 years old when he first set out for America in 1823, but he already had a wide reputation as a scientist." ^{↑ experience and} Quoted from U. S. For. Service Dist. 5 news leaflet, May 1927. Douglas had no real reputation as a scientist in 1823; and his real reputation, all to be made, was to be as a collector. - May 4, 27.

- Mrs. Inez Meria has just returned from a collecting trip to the west coast of Mexico.

She collected mainly flowering plants, putting up 15 sets, I think she said. The University of California is to have the first set. Other sets have been ordered by Harvard (the Gray Herbarium), the Smithsonian Institution, Missouri Botanical Garden, New York Botanical Garden. Mrs. Mexia worked mostly near the coast in regions where, probably, no botanical collector has ever been. In any event she was rara avis to the natives. Trees were mostly in fruit. She collected the native names wherever possible. If a native were asked the name of a tree he did not look at the crown or at a leaf: he struck a blade into the trunk and sampled the wood. It seems

that Mrs. Mexia made the trip at Professor Satchell's instance. She seemed to think that he was paying for a set of the specimens himself. At any rate he personally advanced money, as did, I think she said - Sargent, ^{the} Arnold Arboretum being another subscribing institution. It seems also that E. D. Merrill wants her to go back ^{to Mexico} and collect about Acapulco, in order to develop evidence concerning the possible introduction into the Phillipine Islands of aliens from the Mexican west coast at a time when the gold galleons in early days plied regularly from Acapulco to Manila ^{and back} and return - the regular route to Old Spain. - May 3, 1927. - There is a rumor abroad about the University (it has been noticed in the newspapers) that E. D. Merrill is to leave the Secretary of

Agriculture for a year in order to be Director of the Botanical Garden at Los Angeles, whose site is laid out in the Santa Monica foothills. It is said he is to have \$14,000⁰⁰ a year salary and is taking it as a "flier" to see whether it has sufficient promise* as a permanent job. - May 1, 1927.

- Native plant users. The aboriginal pop. of Cal. fell between 120,000 and 150,000.

- cf. A. L. Kroeber in Sci. 54: 163.

- California Exploration. Missalia Reading, daughter of Major T. [sic] B. Reading, paymaster of Fremont's Battalion, lives at Anderson, Shasta Co. also L. L. McCoy, distant relative of Jedediah Smith. Acc. to Fresno Republican, Sat., Apr. 9, 1927.

* It was^{in 1924} the judgment of the botanical garden committee, self-constituted, Hall, Babcock, Webber, et al., that this scheme is a real estate scheme, ala Los Angeles boom methods.

- Dined last night at the home of Dr. and Mrs. S. J. Holmes in Berkeley on Santa Barbara ave. W. Z. Ritter, formerly of the Scripps Biological Institute, and later of Science Service, and Paul Popenoe of the Coachella Valley, were present. Popenoe said that the date (*Phoenix dactylifera*) has a larger number of named horticultural varieties (I think he said, over a thousand) than any other fruit-bearing tree. He owns a date orchard in the Coachella Valley, but makes more money at present selling vegetative shoots for new orchards than from the sale of date fruit. The tree continues to produce these vegetative offsets until 13 years old, after which they cease. Walter Swingle of the U.S.D.A., also owns an orchard in the Coachella Valley. Paul Popenoe was formerly Editor of the Journal of Heredity. - May 7, 1927.

- E. L. Greene. Made fine friends among University students when he first came to Berkeley: Sidney Mages, later President of the Univ. of Texas, now President of the City of New York. He and Colonel Edward M. House married sisters. Chas. Ransome now of the Catholic hierarchy in S. Fr., very near Archbishop.
- L. H. Knoche. Is a charming gentleman, now resident at San Jose with his huge library and Mediterranean herbarium who said of botanizing in California: Oh, no! I shall not walk! I shall have an auto and when the auto can carry me no further I shall use my horse brought along behind the car in a specially constructed trailer. This he said to me about 1923. Of course in my opinion a botanist's way is to walk. Indeed a lot of the time his place is on his knees. By getting down on on knees and peering into the grassy formations and about bushes and margins

- of pools, we found (Perisan and I in Apr. 1927) many small things, such as *Centunculus minimus*, that would have been overlooked while we were botanizing on the mesa at La Jolla.
- Carl Epling, who at my suggestion, took Monardella for his doctor's thesis subject, which he worked up at St. Louis, under my friend Greenman, came back to California to Los Angeles (southern branch of the Univ. of Cal.) and went out botanizing with McMinn who was down in S. Cal. ^{↑ H.S.} for the time McMinn pointed out some Monardella species in the field; it was the first time that Epling had seen Monardella alive. This story from H.L. Mason. Epling has married again - just one year after his first wife's death. - May, 1927.
- H.A. Tibbatts, Supt. of Parks in Berkeley came to call a few days

ago at my laboratory. He has brought to Berkeley and is successfully cultivating in the parks *Peltiphyllum peltatum*. - May 11, 1927

- C.C. Everett. Says that: Mrs. Lemmon was instrumental in aiding ^{J.G.} Albin Putzger to secure his University position. Mrs. Lemmon's acquaintance with Putzger dates back to Santa Barbara where both were resident. Mrs. Lemmon wrote the thick printed volume Pacific Coast Red Cross report (? somewhere about 1880). Everett refers to it as Mrs. Lemmon's Book. - May 14, 1927.

- There are sets of Bolander's Californian Plants, Kellogg and Harford's Californian Plants, Pringles Southern California Plants in the Herbarium of Judge Clinton now in the Elmwood Museum, Buffalo Society of Natural Sciences, Buffalo.

See Frank W. Johnson in litt. 3 May '27.
- Thurber, George. Of Mexican Boundary Survey. He came to S.F. with J.H. Bartlett, the U.S. Boundary Commissioner, and made with Bartlett and Dr. Webb^{*} a trip to the Geysers from ^{Thos H.} Benecra through Napa and Knights' valleys. The narrative is by Bartlett in "Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora and Chihuahua" (1856), vol. 2, p. 13 to 52. Thurber is mentioned on pages 12, 39, 97, ^{Dr. A. Randall,} "a gentleman of science long resident in the country" is mentioned on p. 54.

Arthur Schott collected insects, birds, mammals and some plants. See vol. 2, p. 545-549. Dr. J.M. Bigelow, Geo. Thurber, Dr. C.C. Parry, mentioned on p. 549, vol. 2. On p. 120 the title ^{and 550}

vol. 2,

* Also mentioned p. 111, 117, 120

of Thurber is given as: "Quartermaster, Commissary and Botanist." See also p. 550. Arthur Schott, Assistant Surveyor, United States Boundary Commission is the author of "Sketch of the Geology of the Lower Rio Bravo del Norte"; in "Report of the U. S. and Mex. Boundary Survey" by W. H. Emery. He also drew the colored portraits of the Indians published in the above report.

- Braunton, Ernest. Has been a member of the Board of Forestry of Los Angeles, member of the Parks Commission of Los Angeles, Associate Editor of "California Cultivator" for 23 years, California editor for "Country Life in America", contributor to Bailey's Standard Cyclopaedia of Horticulture. Cf. vol. 45: p. 130 *infra*.

- History of Botanical Exploration in Calif. Cf. Bibliography of American Natural History: The Pioneer Century, 1769-1865, by Max Meisel. Premier Publ. Co., 658 Broadway, Brooklyn, N.Y.

- Thomas, Major. An army officer connected with the Mexican Boundary Survey. Cf. Botany, ^{Mex. Bound.} Rep. p. 82. He collected *Eriogonum thomasi*. He is referred to in Bartlett's Narrative I think.

- Mr. and Mrs. B. B. Parish say: Dr. Asa Gray was a small man quite undersized. H. S. Bebb came to California about a month before he died. He died at the Parish house. For some years previously he had been going to Florida "on account of a slight cough". In reality he was a far-gone consumptive when he reached California. He lived with his

wife in the town in San Bernardino, having stayed with the Parishes a week on arrival. [For some reason that I did not get clearly Bebb was taken out to the Parish ranch one day and died in 24 hrs.].

- June 9, 1927.

I have just received another letter from Georgiana Parks Ballard in which she refers to J. G. Lemmon's claims on *Calceolarius obispoensis*. When Lemmon exclaimed, on being conducted to the plant by Mrs. Ballard, "This is it and I have found it," he did not think of his words in the same sense that Mrs. Ballard did. To Lemmon the world consisted of botanists and non-botanists, the former in a great minority;

but the only ^{really} important class, the others sometimes extremely useful to botanists if they supplied money for botanical enterprises, furnished railroad passes or the like. - June 9, 1927.

- Mr. and Mrs. S. B. Parish say: Dr. C. C. Parry stopped with the Lemmons quite a bit when he was in this part of the state. Parry was a college friend of Dr. J. B. Stillman, the personal physician of Leland Stanford. It was through this channel that Parry secured his railroad pass in California. - June 9, 1927.

- Walter B. Leman, Memorize of an old Actor, p. 381, explains why Edwin Booth and other remarkable actors of the gold-day period played Shakespeare in the mining towns: these towns and

the diggings were full of college-graduates and such. One of these was Dr. Stillman who collected plants in early days of p. 197.

- Daniel Cleveland. His ancestry is given on p. 38, "Register of the California Society of Sons of the American Revolution." He was President of the Southern California Society of Sons of the American Revolution from 1894 to 1901 [and perhaps later.] His birth date is indicated p. 38.

T. S. Brundage was also a member. I saw a copy of the Register in Hardy's Second Hand Book Store, Oakland.

- Mrs. Mary E. Parlier Ames. Sp. has an article in Calif. Horticulturist, 10: 225 (Aug. 1880). It is the first printed article by her that I have seen. A sampling of this

series might yield other notes by early Cal. collectors.

- Last night I was at dinner at the Berkeley Inn, a member of a dinner party given by Daniel Rowan in honor of Dr. Charles Levermore, winner of the Bot Peace Prize of \$50,000⁰⁰, one-time Instructor in History, Univ. Cal. He reminisced about his Berkeley days forty years ago. Said he became acquainted with Charles A. Ramm, a Catholic proselyte of E. L. Greene. He met Greene one evening, with Ramm, and a lively discussion followed, of Catholicism. Levermore tried to tie up the Inquisition of Spain with the Catholic policy. The argument became heated and Greene in reply to a direct inquiry from Levermore said, yes that there might be an Inquisition in this country, the power

that heretics were disposed of the better, and the first to burn should be Levermore!

It is not likely that Greene in a more sober mood would give way to such violent expressions, and certainly as he became older he was more restrained. It must be admitted, however, that he had the flaming zeal of the convert.
- June 13, 1927.

- Daniel Cleveland (see p. 196 *supra*) had dedicated to him by E. L. Greene the genus *Clevelandia*, Proc. Cal. Acad. ser. 2, 3: 157 (1891). - On looking this up I see the name occurs in a paper by J. S. Brandegee, and is not the original place of publication. Founded on *Orthocarpus Beldingii* Greene Bull. Cal. Acad. 1: 123, published as a genus l. c. 1: 182.

- Edward Palmer visited Parish at San Bernardino, perhaps more than once. Palmer was a great friend of W. G. Wright of San Bernardino. Palmer and Wright went to the Southern Sierra Nevada on a trip (whence *Collinsia wrightii*).

W. G. Wright never went further out in the desert than Whitewater or Palm Springs on his trips. S. B. Parish says he can confidently make this statement apropos of my query as to whether there were any possibility of determining an exact locality for *Gymnolunia succuloides* Gray (*Heliophis succuloides*) which Wright collected in the Colorado Desert.

H. Jes. Engelman visited Parish in 1880. Parish took Engel-

Berkeley, 1927.

and Sargent, who was with him on a trip into the San Bernardino Mountains; and Engelmann alone to Whitewater to see cacti. It was on this trip that Engelmann, so rejoiced to see *Opuntia bigelovii*, and parading around it admirably bucket into another cactus and had to be picked loose as Parish expressed it genially.

The above notes, back to top p. 199, on occasion of a visit to Parish June 18. 1927.

-
- Cont. from p. 53. I think rather better of it now. He did, however, publish *R. menziesii* var. *minus* on my material. It is *R. victoris*!
 - Nov. 30.

Addresses:

- E.S. Thatcher, the man who gave me
detailed instructions as to Whitnour ^{road} _{My}
Anderson Garage, Anderson.

1925	SUN	MON	TUE	WED	THU	FRI	SAT	1925	SUN	MON	TUE	WED	THU	FRI	SAT
JAN	•	•	•	•	•	•	•	JUL	•	•	•	•	•	•	•
	1	2	3	4	5	6	7		5	6	7	8	9	10	11
	8	9	10	11	12	13	14		12	13	14	15	16	17	18
	15	16	17	18	19	20	21		19	20	21	22	23	24	25
	22	23	24	25	26	27	28		26	27	28	29	30	31	•
FEB	•	•	•	•	•	•	•	AUG	•	•	•	•	•	•	•
	1	2	3	4	5	6	7		2	3	4	5	6	7	8
	8	9	10	11	12	13	14		9	10	11	12	13	14	15
	15	16	17	18	19	20	21		16	17	18	19	20	21	22
	22	23	24	25	26	27	28		23	24	25	26	27	28	29
MAR	•	•	•	•	•	•	•		30	31	•	•	•	•	•
	1	2	3	4	5	6	7	SEP	•	•	•	•	•	•	•
	8	9	10	11	12	13	14		6	7	8	9	10	11	12
	15	16	17	18	19	20	21		13	14	15	16	17	18	19
	22	23	24	25	26	27	28		20	21	22	23	24	25	26
	29	30	31	•	•	•	•		27	28	29	30	•	•	•
APR	•	•	•	•	•	•	•	OCT	•	•	•	•	•	•	•
	5	6	7	8	9	10	11		4	5	6	7	8	9	10
	12	13	14	15	16	17	18		11	12	13	14	15	16	17
	19	20	21	22	23	24	25		18	19	20	21	22	23	24
	26	27	28	29	30	•	•		25	26	27	28	29	30	31
MAY	•	•	•	•	•	•	•	NOV	•	•	•	•	•	•	•
	3	4	5	6	7	8	9		1	2	3	4	5	6	7
	10	11	12	13	14	15	16		8	9	10	11	12	13	14
	17	18	19	20	21	22	23		15	16	17	18	19	20	21
	24	25	26	•	•	•	•		22	23	24	25	26	27	28
	31	•	•	•	•	•	•		29	30	•	•	•	•	•
JUN	•	•	•	•	•	•	•	DEC	•	•	•	•	•	•	•
	7	8	9	10	11	12	13		6	7	8	9	10	11	12
	14	15	16	17	18	19	20		13	14	15	16	17	18	19
	21	22	23	24	25	26	27		20	21	22	23	24	25	26
	28	29	30	•	•	•	•		27	28	29	30	31	•	•